



#### ANNUAL MAGAZINE 2019-20



AWARDS & ACHIEVEMENTS | PUBLICATION & RESEARCH ACTIVITIES | COLLOQUIA REVIEW-ARTICLES | POETRY | CULTURAL ACTIVITIES & SPORTS | SOCIAL ACTIVITIES EXCURSION & OUTINGS | FIELD VISITS | PHOTOGRAPHS | SKETCHES

# **EDITORIAL**

**COMMITTEE 2019-2020** 

#### CONCEPTUALIZATION BY

Prof. Deepali Singhee Principal, JDBI



Dr. Shweta Tuteja Rakshit Assistant Professor Deptt. of TCFS & IQAC Co-ordinator



Ms. Pratibha Sharma Assistant Professor, Deptt. of Commerce



Dr. Madhumita Saha Assistant Professor, Deptts. of Science & Commerce

#### FROM THE EDITOR'S DESK

While the world is at a 'Pause' in these trying times, the Editorial Board of the JD Birla Institute remain effective and proudly presents its exclusive publication, JDBI TIMES, 2019-20 that serves as a platform for students to highlight their literary and artistic

Creativity is an exploration of the self. The magazine gives an opportunity to the students and staff to express their beliefs, ideas and creative aspirations. It documents our journey that will enlighten you to the important milestones that we have achieved this year.

We heartily thank our Management Deepali Singhee whose guidance has been vital throughout.

Hope you appreciate the creative efforts of our students and encourage them in their future aspirations.

#### STUDENTS' REPRESENTATIVES

Deptt. of Science



Prachi Baid 3rd year (HD)



Khushi Joshi 3rd year B.Com (Marketing)

#### Deptt. of Commerce

#### PRINTED AT

**Outgoing Students** 

#### CDC Printers Pvt. Ltd.

45, Radhanath Chowdhury Road, Kolkata-700015

E-mail: cdc@cdcprinters.co.in

CONTENTS

College Ranking Awards & Recognitions

Media Coverage

**Placements** 

Other Achievements

Teacher's Day Celebration

Faculty Development Initiatives

Bee pollen: A Rising Superfood

Detox Diet Activated Charcoal

Shahtoosh-A Shawl to Die for

Disaster Relief Shelter Homes

Children in Armed Conflict

Developmental Robotics

Delusional Disorder

The Story of Life

Career Counseling Sessions

Industrial Visits & Excursions

Cultural Activities & College Events

Outreach & Extension Activities

Competitions for Students

Colloquia

Workshops

Photography

Group-D Staff

Sketches

Obituary

Student's General Election

3D Food Printing

Sugar Unconventional

Fashion from Food Waste

Polyester Recycled

Floating Villas

**Faculty Achievements** 

College Publications

Paper Presentation

Exploring Possibilities Overseas

List of Toppers & Annual Convocation

Conferences/Seminars/Workshops/Webinars Attended

Write-up on selected Seminar presented by Students

Click-Post-Like-Eat: Visual Hunger to Digital Satiation

Neuromarketing-The Art, Science and Opportunity

If There Would be a World of Instagram ....

Risk is the Down Payment on Success

Academic Activities, Seminars/Webinars

Students' Participation in Inter-College Fests

Pg. No.

5

6-7

8-9

10

11-14

15-16

17-19

20-26

28

29

32

41

30-31

33-37

38-40

42-45

46-47

48-52

53-57

58-60

61-64

65-70

71-75

76-80

81-87

88-90

91-93

94-97

98-100

101-103

104-105

106-107

108-109 110-114

115-124

125-130

131-135

136-140

141-155

156-160

162-171

172-194

195-201

202-205

206-213

213

214

161

skills and talents.

for instilling faith in this creative pursuit and our Principal, Prof.

Graphic Designer, JDBI

**DESIGN & ILLUSTRATION** 

Mr. Sanjib Adak

Disclaimer: Images used in this magazine have been sourced from various websites to depict the content and are not original.



#### J.D. BIRLA INSTITUTE

J.D. Birla Institute (JDBI) was established in 1962 and is a private unaided College affiliated to Jadavpur University, Kolkata since 1963. It is located in the heart of the city at 11, Lower Rawdon Street.

In acknowledgement of its continuous quest for excellence and the exemplary standards the Institute has maintained over five decades, it was awarded the highest possible grading of "A" by National Assessment and Accreditation Council (NAAC). The Institute has also been ranked high amongst Institutes of higher learning in the country by several rating agencies including India Today, The Week, Career 360, Outlook and Times Magazines.



President Governing Body, JDBI

I am glad that the college has taken the initiative to bring out its Annual Magazine as per schedule. I convey my good wishes to the Principal, students, faculty and staff of the college for the endeavour to take remain unshaken at this hour of crisis and to keep their spirits high. I hope this crisis will bring renewed fortitude and take the Institute to newer heights of excellence in the years to come.

I wish good health and well being to all.

0 \_

Mrs. Sumangala Birla
President, Governing Body, JDBI

#### যাদ্বপুর বিশ্ববিদ্যালয়

PROFESSOR SURANJAN DAS M.A. (Cal), D.Phil (Oxon) VICE-CHANCELLOR অখ্যাপক সুরঞ্জন দাস উপাচার্য

E-mail: vc@admin.jdvu.ac.in E-mail: suranjandas2000@yahoo.co.in



JADAVPUR UNIVERSITY 188, RAJA S.C. MALLIK ROAD KOLKATA-700 032, INDIA

Phone: +91-33-2414-6000 (O) Fax: +91-33-2413-7121 (O)

OFFICE OF THE VICE-CHANCELLOR: AUROBINDO BHAVAN ANNEXE

I congratulate J D Birla College for publishing the College Magazine for the year 2020. I am particularly happy that the College could maintain its tradition despite the current pandemic which has thrown the academic life of the world out of gear. I am sure, as on earlier occasions, the Magazine will provide a platform to students and teachers alike to express their view-points on a wide range of issues. I particularly congratulate the Principal and the members of the Governing Body of the College for providing a dynamic leadership to the College. However, the continuous march of the College to new heights of excellence would not have been possible without the teamwork for which J D Birla has gained wide recognition.

I wish J D Birla College all the best.

Hon'ble Vice Chancellor, Jadavpur University

Sulayan Das.

**Prof. (Dr.) Suranjan Das**Vice-Chancellor, Jadavpur University



Residence: FE-14, Salt Lake City, Kolkata-700 106, West Bengal, India, Telephone: +91-33-2358-2389











Brig VN Chaturvedi (Veteran) Secretary General

Mobile: 9599423988

Phone: 033 2289-0033

Email: secretary\_general@birlahighschool.com

Vidya Mandir Society LN Birla Building 01 Moira Street Kolkata - 700 017

As the world is going through a humongous humanitarian tragedy, our lifestyles have changed significantly and we are forced to adopt new norms of lockdown and social distancing to maintain optimum levels of human health security. However, even as we adapt to the Covid-19 crisis gripping the world at large, we aspire to emerge more creative and imaginative with new thoughts and ideas. The efforts to harness the creative energies of our students and distilling their essence in these uncertain times, continues unabated. I compliment this never say die spirit. After all the Phoenix rises from the ashes only.

I am delighted to know that the Annual College Magazine JDBI Times 2019-20 is ready for publication and appreciate the contributions of the Principal and her team for their successful completion of this special edition of the magazine brought out in this time of crisis. It is indeed a creative visual delight. I wish the students and staff all the luck in their future endeavors. May you all emerge stronger and soar to achieve the highest potential in your life.



**Brig. V.N. Chaturvedi** Secretary General, Vidya Mandir Society





# Principal



When we least expect it, life sets us a challenge to test our courage and willingness to change...

-Paul Coelho

The Covid-19 pandemic has significantly transformed the centuries old chalk-talk teaching model to one driven by technology. Our college too accepted this technological challenge posed by the pandemic and made sustained initiatives to disseminate through virtual platforms hereby carrying forward all academic activities at this hour of crisis. Regular online classes were held on virtual platforms on the basis of designated time tables created for every department, which ensured a smooth functioning of academic activities. Several webinar sessions were conducted by the college featuring renowned personalities and eminent speakers from the industry to encourage and motivate students with new thoughts and ideas to combat the global crisis, through topics ranging from economic and commercial perspectives to topics on mental health and emotional well being. Besides academic activities, the college initiated several interactive sessions such as Quiz, Debates and Group Discussions to enervate and enliven the intellectual spirit among the students. Competitions were organized to encourage students to participate in creative DIY videos.

Indeed, I believe this is indeed a very special edition of the college magazine. It gives me immense happiness to see that we have been able to compile the magazine against all odds. I thank the faculty, staff and my dear students for their contributions. Hope we emerge stronger and more resilient from this crisis.

Professor Deepali Singhee, Ph.D

Principal, J.D. Birla Institute (Departments of Science, Commerce & Management)
Ph.D - Jadavpur University; M.Sc - Bombay University; B.Sc - Jadavpur University



#### EMERGING COLLEGE OF THIS CENTURY (COMMERCE)

INDIA TODAY



THE ECONOMIC TIMES



RULA (WORLD RESEARCH COUNCIL)



GURUKUL AWARDS (LIONS CLUB OF KOLKATA)

BEST MANAGEMENT INSTITUTE

GURUKUL AWARDS (LIONS CLUB OF KOLKATA)

PRINCIPAL OF THE YEAR (COLLEGE)

GURUKUL AWARDS (LIONS CLUB OF KOLKATA)

PRINCIPAL OF THE YEAR (COLLEGE)

SANKALP EDUCATION AWARDS (LIONS CLUBS INTERNATIONAL)

WOMAN SUPER ACHIEVER (PRINCIPAL)

CMO ASIA

MOST FRIENDLY COLLEGE

BENGAL ROWING CLUB

#### MAXIMUM EVENT PARTICIPATION

CONFEDERATION OF INDIAN INDUSTRY (CII) & YOUNG INDIANS (YI)

















#### RANKING (CITY BASED)

1st

Management
India Today (2020)

2<sup>nd</sup>
Science
India Today (2020)

2<sup>nd</sup>
Commerce
India Today (2020)

#### RANKING (ALL INDIA)

10<sup>th</sup>
Management
India Today (2020)

31<sup>st</sup>
Commerce
India Today (2020)

64<sup>th</sup>
Science
India Today (2020)

#### awards



RULA Awards for India's Outstanding & Innovative Educational Institute

RULA AWARDS

INDIA'S DETSTANDING & INDIVATIVE
BIGH QUALITY EDICATIONAL DISTITUTE AWARD
Promoted to

LICEBRILA DISTITUTE

on Ratna Atoard Of the Year '2019





Gurukul Awards 2019 for the Most Promising College from Lions Club of Kolkata, Mother Teressa Sarani on 8th September, 2019



Gurukul Awards 2019 for the Best Management Institute from Lions Club of Kolkata on 8th September, 2019



Sankalp Education Awards 2019 for the Principal of the Year (College) from Lions Clubs International, in association with David & Goliath and Faces on 1<sup>st</sup> September, 2019

Woman Super Achiever Award by CMO Asia





Gurukul Awards 2019 for the Principal of the Year (College) from Lions Club of Kolkata, Mother Teresa Sarani on 8<sup>th</sup> September, 2019



Felicitation by Confederation of Indian Industry (CII) & Young Indians (YI) for Maximum Event Participation on 1st February, 2020



Most Friendly College Trophy at BRC Inter College Rowing Championship 2020 by the Bengal Rowing Club on 22<sup>nd</sup> February, 2020

# MEMORANDUM OF UNDERSTANDING















he college has academic MOUs with several organizations and have conducted several activities under it.





Under a MOU with National Stock Exchange Academy, 19 Commerce students completed a **30 hours Add-on Certificate Course on Stock**Market Analysis on 20<sup>th</sup> August, 2019.



MOU with ICFAI Business School (IBS), Kolkata Under a MOU with ICFAI Business School (IBS), Kolkata 28 commerce students completed a **30 hours** Short-Term Course on Data Analytics & Game Theory on 20<sup>th</sup> September, 2019.

A joint-certificate was given to the participating students after completion of course in January 2020.

The college has subscribed through an agreement with IIT-Mumbai for short term online course, 'Spoken Tutorial Project' as prescribed by the National Mission on Education through ICT (NMEICT) under the MHRD, Government of India.

993 students enrolled for the course of which 723 completed the course and have been **awarded a certificate by IIT-Mumbai.** 

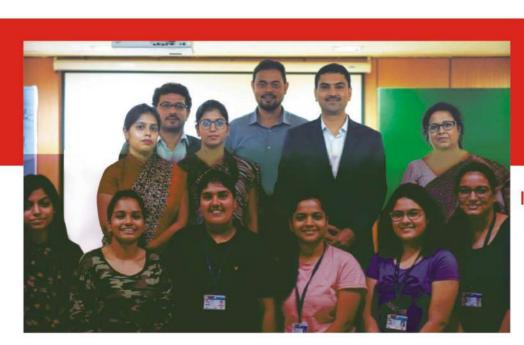




MOU with Academy of Pastry Arts, India A formal MOU was signed with Academy of Pastry Arts, India (APAI), Bangalore on 15<sup>th</sup> October, 2019 for conducting a **30 hrs Certificate Course in Baking** at JDBI.

28 FSNM students completed a **30** hours Certificate Course in Baking on 29<sup>th</sup> December, 2019.

A complimentary workshop on 'Cookies-Baking Delight' was also conducted on 27<sup>th</sup> December, 2019 by APAI for 40 students from different departments.



ICA Edu Skills Pvt. Ltd. conducted **10 hrs Course on 'Tally**' for all 1<sup>st</sup> year B.Com students from 14<sup>th</sup> October, 2019 to 22<sup>nd</sup> October, 2019.

# EXPLORING POSSIBILITIES OVERSEAS

International student exchange programs are effective ways of opening the doors to new education opportunities and can help build bridges of understanding among students from a diversity of countries. It seeks to bring together institutions and organizations from around the world to explore obstacles and opportunities in expanding academic interests through such programs. Prof. Deepali Singhee, Principal accompanied by Brig. V. N. Chaturvedi, Secretary General, Vidya Mandir Society went for an international trip to Paris and London to facilitate student's exchange programs, discuss possibilities of project collaborations and higher studies for our institute/ students with renowned Universities like University of Creative Arts (UCA) and the School of Oriental and African Studies (SOAS), under the University of London.









Visit by University of Creative Arts (UCA)

An Interactive Session by Ms. Lisa Li, Head International Recruitments, University of Creative Arts (UCA), London was also held for final year TCFS & ID students on 14<sup>th</sup> November, 2019 at the JDBI Main Campus (India).



# **COVERAGE**



#### Edifying experience



# प्रभात खबर

#### ऑनलाइन मंच के लिए जरिये बच्चों को पढ़ाया

पूर्व विकार में फैल्सी करीहर - 9 सामध्यी के माराण देखिलिया संस्थानों बांचुकाल विकार प्रणानी सुरूत को गांवी है, हमी करने में जोती सिम्मण इंटरेट्ट्र में साथ कुता सामधीयक में साथ देखें हमें कार पुत्राची सामधीयक में साथ देखें हमें किए एक अधिकार पाल की हैं केट्टेट्ट्र हमें कुतान विकारमंदि विभाग की पालाओं हमार इंटरनिया ट्रेनिय की देशान हमिला के बीचन मी कर मीला मारा कार्य कार्य के अध्यानाव कार्यकाल किया गांवा, इन काराओं के अध्यानाव किया गांवा, इन काराओं के अध्याना





Regular and diligent use of masks can go a long way in preventing the spread of COVID



# The Telegraph

#### **MASK MATTERS**

Regular and diligent use of masks can go a long way in preventing the spread of COVID





#### <u> ক্লে</u>স্টেটসম্যান KOLKATA, FRIDAY, 29 MAY 2020

জেডিবিআই-এর শিক্ষার্থীদের জন্য খাদ্য বিশারদের টিপস



**ক্ষেটেসম্যান** 

#### ছাত্রীদের আত্মরক্ষার প্রশিক্ষণ শিবির

নিজস্ব প্রতিনিথি— কিশোরী ও যুবতীদের এখন আছরক্ষার কৌশল জেনে রাখাটা জকরি হরে পড়েছে। সমাজের নানান হিত্রভার লিকার হচ্ছেন কন্যা সন্তানরা। এজনা জেতি বিভলা প্রতিষ্ঠানের পক্ষে তিনালা ছাত্রীকে আয়সূত্রজ্যা কৌশালের বাবস্থা করা হয়েছিল। তিন নিনের প্রশিক্ষণ শিবিরে আমুন্তিছার ক্যাথেরাইন মুয়ে থাই দক্ষ ডেভিড ফ্রাড বিভিন্ন কৌশালের পাঠ দেন। এর সঙ্গেছিল খালাত্যানেরও পাঠ। জেতি বিভলা, বিবাা বেলা খাউজেশন এবং এদিসন ফাউজেশন যৌখতাবে এই প্রশিক্ষণ শিরিয়ের আয়োজন করেছিল।







#### সংবাদ প্ৰবাহ

জেডিবিআই-এর শিক্ষার্থীদের জন্য পৃষ্টিবিদদের টিপস



#### - OIRIGIAM

KOLKATA, SATURDAY, 30 MAY 2020 >> ভার্ন্থাল ক্রাস

জে ডি বিড়লায়

#### দুরন্ত বার্তা

SATURDAY, 30 MAY 2020

#### জে. ডি. বি. আই এর শিক্ষার্থীদের জন্য খাদ্য বিশারদের টিপস



जेडी बिड़ला इंस्टीच्यूट द्वारा आयोजित अंतर कॉलेज खेलकूद प्रतियोगिता जेस्ट 2020 में मंच पर उपस्थित मेजर जनरल अरुण रोए, पूर्व जीओसी (बंगाल) डॉ. अपरूप कोनार, जेडी बिड़ला की प्रिंसिपल डॉ. दिपाली सिंघी, सुश्री मीनाक्षी बिड़ला और श्री अभिनव पारेख एवं अन्य।

# গীতাঞ্জলি স্টেডিয়ামে ক্রীড়া দিবস

আজকালের প্রতিবেদন

গীতাঞ্জলি স্টেডিয়ামে তাদের বার্ষিক ক্রীড়া দিবস 'জের ২০২০ আন ইন্টার-কলেজ ম্পোটস মিট'-এর আয়োজন করল জেভি বিড়লা ইনষ্টিটিউট (ডিপাটমেন্টস অফ সায়েন্দ, কমার্স আছে ম্যানেজমেন্ট)। শিবনাথ শাপ্ত্রী কলেজ, ত্রানীপুর কলেজ, হেরিটেজ বিজনেস ক্ল, আইলিড এবং জেডি বিড়লা ইনষ্টিটিউটের (জেডিবিআই) পড়ুয়ারা ছাড়াও একতারা, ফিউচার গ্রুপ, হোপ কলকাতা ফাউন্তেশনের বিশেষ চাহিনাসম্পন্ন, পিছিয়ে-পড়া শিশুরা এখানে যোগ দেয়। ছিলেন অবসরপ্রাপ্ত পূর্বাঞ্জলের সেনাপ্রধান মেজর জেনারেল অরুণ রায়, যাদবপুর বিশ্ববিদ্যালয়ের শারীর শিক্ষার অধিকর্তা ড. অপরূপ কোনার, জেডি বিড়লা ইনষ্টিটিউটের অধ্যক্ষ ড. দীপালি সিংঘি, মীনাক্ষী বিড়লা ও অভিনব পারেখ।

#### छात्राओं को सामाजिक कार्यों से जोड़ने में सक्रिय है जेडीबीआइ : डॉ सिंघी



कोलकाता. जेडी बिरला इन्सटीट्यूट के साइंस, कॉमर्स व मैनेजमेंट विभाग हारा बुधवार को वार्षिक स्पोर्ट्स दिवस 'जेस्ट 2020 ' गीतांजिल स्टेडियम में आयोजित किया गया. इंटर-कॉलेज स्पोर्ट्स कार्यक्रम में कई कॉलेजों के विद्यार्थियों व एनजीओ के बच्चों ने यहां खेल प्रतियोगिता में भाग लिया. कार्यक्रम में जेडीबीआइ की प्रिंसिपल डॉ. दीपाली सिंघी ने कहा कि हमारा संस्थान एकेडिमक के अलावा विद्यार्थियों को विभिन्न सामाजिक कार्यों में भी सिक्रिय रखता है, जिससे उनके अंदर मानवीय मूल्यों का विकास हो. यहां आये अलग-अलग एनजीओ के बच्चों ने खेलकूद प्रतियोगिताओं में काफी आनंद उठाया. कार्यक्रम में उपस्थित पूर्व ऑफिसर कर्माडिंग, बंगाल मेजर जनरल, जादवपुर यूनिवर्सिटी के फिजिकल इन्सट्रक्शन के निदेशक डॉ. अपारूप कोनार, शिक्षाविद् मीनाक्षी बिरला व अतिथियों में अभिनव पारिख ने विद्यार्थियों को प्रोत्साहित किया. यहां गरीब व विशेष जरूरत के बच्चों के साथ छात्राओं ने सहभागिता कर उनके चेहरे पर मुस्कान बिखेरने की कोशिश की.



#### The Telegraph



The Statesman

**♦**The Indian **EXPRESS** 

**FINANCIAL Chronicle** 

millenniumpost













সংবাদ প্ৰবাহ

দুরন্ত বার্তা



- 1. Dainik Viswamitra, Kolkata, Thursday 16 January 2020
- 2. Aajkal, Kolkata, Thursday 16 January 2020
- 3. Prabhat Khabar, Kolkata, Thursday 16 January 2020
- 4. Chapte Chapte, Kolkata, Thursday 16 January 2020
- 5. Millenium Post, Kolkata, Thursday 3 September 2019

#### Youth should keep alive the craft of fine muslin: Ashmore

India's young generation should understand the legacy of the country's rich heritage in textiles and endeavour to keep alive the fabled craft of fine muslin which is gradually getting lost, top design-historian and author Sonia Ashmore said in Kolkata.

Ashmore, who specialises in the traditional craft of weaving, said that lack of high-quality yarn, the danger of losing traditional skills and the role of intermediaries are killing muslin making. "The young generation of Indians should understand the legacy of the country's rich heritage in textiles and rise to protect the dying traditions and once again try to keep alive and revive the fabled craft of fine muslin which is gradually getting lost and is mostly done through instinct, eye and experience," said Ashmore while addressing the students of textile science, clothing and fashion studies at the J.D. Birla Institute (JDBI).

Ashmore is not making and fashion studies at the J.D. Birla Institute (JDBI).

Ashmore said that not much has changed in muslin making and fashion studies at the J.D. Birla Institute (JDBI).

Ashmore is repaired to manufacture a Jamadaniarce, It takes two men 30 weeks to compelet a saree," said the author of the seminal fook. Muslin!

Ashmore's tryst with muslin began with specing drawers at the Victoria and Albert

orative arts and design, housing a perm collection of over 2.27 million objects. She got valuable material for reson mustlin from the "dusty old docum at the Indian section of the British Lil She has also extensively toured across and Europe, meeting artisans, weaver personal collectors of mustlin. "Indians stopped wearing traditional dress. Also of high-quality yarn and the danger of I traditional skills and the role of interm



6

#### 6. Samay Paribartan, Kolkata, Friday 13 September 2019

- 7. Samagya, Kolkata, Friday 13 September 2019
- Janasattya, Kolkata, Friday 13 September 2019
- 9. Times of India, Kolkata, Tuesday 24 September 2019
- 10. Arthik Lipi, Kolkata, Thursday 12 September 2019
- 11. The Asian Age, London, Saturday 10 September 2019 12. Prabhat Khabar, Kolkata, Thursday 12 September 2019
- 13. The Asian Age, Kolkata, Friday 13 September 2019

# युवाओं को भारत की समृद्ध वस्र विरासत को जिंदा रखना चाहिए : एशोमोरे



#### वस्त्र विरासत को जिंदा रखें युवा

कोलकाता, 12 सितंबर (जनसता)।

विख्यात डिजाइन इतिहासकार सोनिया एशमीर ने कहा है कि युवाओं को यस्त्र क्षेत्र में भारत की समृद्ध विशसत को समझने और उसे संरक्षित करने के प्रयास की जरूरत है। बुनाई के पारंपरिक शिल्प में विशेषज्ञता रखने वाली एशमीरे ने शहर के एक संस्थान में कपड़ा विज्ञान व फैशन स्टडीज की पढ़ाई करने वाले छात्र-छात्रों से मुलाकात की। मलमल को तैयार करने के शिल्प पर बात करते हुए मसलिन किताब की लेखिका ने कहा कि जामदानी साड़ी तैयार करने के पीछे की मेहनत और कौशल की प्रशंसा होनी चाहिए। इस साड़ी को बनाने में दो लोगों को 30 सप्ताह का समय लग जाता है। उन्होंने कहा कि अब लोगों ने पारंपरिक कपडे पहनना बंद कर दिया है और उच्च गुणवत्ता खत्म होने व बिचौलियों की वजह से इस पारंपी शिल्प को खतरा है।

#### Muslin expert interacts with textile and fashion students





জ্ঞেত্তিৰআই-তে মসন্দিন শাড়ি'র এক্সগাউদের সচ্চে ত. সোনিয়া এসমোরে। প্রবাত কেবিকা এবং চৈ ডিজাইনার হিসেবে তার কাছে টেক্সটাইল সামেক নিয়ে গাঠ নেন ক্লখ ও ফালন বিভাগের গড়্যারা। (

#### Call to keep alive dying tradition of weaving muslin



#### जडीबीआइ में मसलिन विशेषज्ञ ने विद्यार्थियों से जानकारी साझा की



#### Keep alive rich textile heritage: **Sonia Ashmore**

Kolkata: The youth should understand the legacy of India's rich heritage in textiles and make efforts to preserve it, renowned design-historian Sonia Ashmore has said. Ashmore, who specialises in the traditional craft of weaving, called upon students of textile science and fashion studies of a city institute, to keep alive the fabled craft of fine muslin, "which is gradually getting lost". Reflecting on the craft of muslin making, the author of the seminal book Muslin said on Wednesday, "one must appreciate the amount of human effort required to manufacture a Jamdani saree. It takes two men, 50 weeks, to complete weeving a saree." The session following the Threads of Muslin' was jointly organised by the institute and an art studio.

#### जेडी बिरला में छात्राओं को सिखाया गया आत्मरक्षा का गुर

कोलकाता. जेडी बिरला इंस्टीट्यूट में आत्मरक्षा का गु सिखाने के लिए विशेष कार्यशाला आयोजित की गर्बी इसमें संस्थान की लगभग 300 छात्राओं ने भाग लिया यहां ऑस्ट्रेलिया के कैथेराइन याई विशेषज्ञ डेविंड फ्लंड वहां ऑस्ट्रेलिया के कैथेराइन यार्र किरोपज डेविड प्रस्तड ने छात्राओं को आत्मराखा के गुर सिखांत , उन्होंने कहा कि भारत में नाईकियों पर हा रेड प्रस्त में उनको युद्ध उपनी रक्षा कर आपता में नाईकियों पर हा रेड प्रस्त में उनके युद्ध उपनी रक्षा कर करनी होगी, इसके लिए विशेष उक्तनीक सीखान की जरूरत है. लाईकिया गंभीर स्थिति से प्रवाद का सकती हैं, अगर आत्मेरियास का साथ जरूरता प्रशिक्षण में प्रस्ता वन जाते. सारी नकनीक के साथ वे हर परिस्थिति का मुकाबाला करते हुए अपनी हाई कर सकती हैं. कार्यक्रम में जोड़ी विरस्ता की ग्रिसियाल देखाली सिधी ने कार्र कि समाज में मीड़ियाओं क्रांत जो धारणा चनी हुई है, उसको बदलने की जरूरत है. इसमें शिक्षण संस्थान अहम भूमिका निमा पुळते हैं, लड़कियों को अपने अधिकारों के प्रति भी जागरूक रहने की जरूरत है.



on gender equity



JD Birla Institute (JDBI) in association

JD Birla Institute (JDBI) in association with Vidya Veda Foundation and Esesson Foundation, Australia hosted a workshop titled "Limitless Potential- A step towards gender equity" recently.

It began with the introduction of the guests, keynote speaker and the purpose of the workshop. In the opening speech, Deepal Singhee, principal, JDBI asserted the importance of educating and empowering young girls to achieve the wider end of attaining gender equality. The students of the institute attended various sessions that took place at the workshop. The sessions were "self defence" conducted by self defence expert David Flood, "nutrition and wellbeing" by nutritionist Kate McCambley and "psychology" by Deborah Andean.





Chief Guest Sanjey Bodhie,
MD – PATTON lighting
the inaugural lamp at
Commercia Conclave
2019-2020: Inter College
Business Convention hosted
by J.D. Birlo Institute,
along with the Principal
olong birlow the College,
St. Xaviers' University,
Scottish Church College,
Str Shikshayutan College,
Techna India College, Chartered Accountants Chartered Accountents
Students Association),
Amity University, Army
Institute of Management,
IISWBM and ILEAD,
porticipated in this
convention



#### बहिलाओं को पूर्ण रूप से आत्मनिर्भर होने की आवश्यकता : प्रो डॉ सैकत मैत्र



- 14. Prabhat Khabar, Kolkata, Friday 10 January 2020
- 15. The Statesman, Kolkata, Tuesday 14 January 2020
- 16. Sambad Pratidin, Kolkata, Sunday 12 January 2020
- 17. Millenium Post, Kolkata, Monday 13 January 2018
- 18. Prabhat Khabar, Kolkata, Wednesday 24 April 2019
- 19. The Indian Express, Thursday 9 January 2020
- 20. The Telegraph, Sunday 29 December 2019
- 21. The Statesman, Tuesday 31 December 2019



JD Birla Institute ("IDBI) in association with Academy of Pastry Arts, India (APAI) organized a One-Week certification programme on Baiking recently. A MOU was signed with APAI, Bangalore for conducting a 30-hr Certificate Course in Baiking at JDBI.



The Department of Food Science and Nutrition Management of 10 Birla Institute conducted a week-long certification programme on baking. This marked the beginning of the association of JD Birla Institute with the Academy of Pastry Arts, India in Bangalore where the institute will conduct two 30-hour baking courses in a year. Besides, a two-hour workshop will be conducted for non-participating students of JD Birla Institute. One student will also get to train from APAI, Ban 20



JD Birla Institute (Department of Food Science and Nutrition Management) in association with Academy of Pastry Arts, India (A unit of Sugar Arts Private Limited) jointly organised a weeks (30 hours) certification programme on baking at

the institute recently.

A formal MOU was signed with Academy of Pastry Arts, India (APAI). Bangalore for conducting the course. Under the MOU, APAI will deliver the content of the programme in two blocks during the year and conduct a two-hour workshop for all other non-participating students of JD Birla Institute. In addition they would train a JD Birla student for one day in a year at the Academy of Pastry Arts, Bangalore campus 21

#### OTHER ACHIEVEMENTS





Students from the ID department secured the 3rd Position in 'Residential Project' category at the Design Competition on Residential & Commercial Project organized by ABID (Association of Builders, & Interior Designers) on 18th January, 2020.

Students from the Commerce department secured the Overall Winner's trophy at second Business Fest of St. Xavier's University, X-Inovae, 2019 organized by Xavier's Commerce and Management Society, Kolkata on 20th & 21 September, 2019.



3

Four 2<sup>nd</sup> year students of Commerce department has won the I" position for Business Plan during Elevator 2018-The Idea Expo organized by the Entrepreneurship Development Cell of St. Xavier's College on 3rd October, 2018 and was handed over a cheque of Rs. 2,500/- each.



Two 3<sup>rd</sup> year students of FSNM department have been selected for the Social Entrepreneurship, a Global Links program on 14th August, 2019 at the American Centre. The students will undertake mentoring of a local entrepreneur for about one semester under guidance by members of the programmes and after selection will be entitled for a partial scholarship for two year full time MBA at Crummers-



Students from Science & Commerce departments secured the Overall Ist Runner's Up position at the Annual Inter-college Management Fest, Nexus '19 on the theme Experience the Perfect organized by Bhawanipur Education Society College on the 29th & 30th August, 2019.



Two groups of five B.Com students cleared the Level-I of CRC (Credit Research Challenge) organized by AIWMI (Association of International Wealth Management of India).

#### other achievements





JDBI Cricket team (Girls) from the Commerce department won the **Gold (1**<sup>st</sup> **position)** in the **inter-college events at Umang 2020,** an annual Fest organized by Bhawanipur Education Society College on 10<sup>th</sup> December, 2019.



Ms. Guritika Saini, 1st year B.Com student represented Jadavpur University and won 2<sup>nd</sup> position in the doubles match in the East Zone Inter **University Tennis** (Women) Tournament, 2019-20 organized by The Assam Royal Global University under the aegis of Association of Indian Universities from 5th to 7th November, 2019 at Guwahati, Assam.







Students from
the Departments
of Science &
Commerce
participated in
various sports
and cultural
events at Srijan,
fest organized by
Shri Shikshayatan
College on
13th February,
2019 and won
1th position
in Tug of War.



Award, Khelo India





Students from Science & Commerce departments secured the 2<sup>nd</sup> position in basketball in the intercollege events at Umang 2020, an annual Fest organized by Bhawanipur Education Society College on 10<sup>th</sup> December, 2019.



#### **LIST OF TOPPERS**

# Department of FOOD SCIENCE NUTRITION MANAGEMENT

Name of the Students	Toppers
Ms. Prerna Shahani	1* Year (Sem. I & II) B.Sc
Ms. Neha Pandey	2 <sup>sst</sup> Year (Sem. III & IV) B.Sc
Ms. Khyati Mody	3rd Year (Sem. V & VI) B.Sc
Ms. Agnijeeta Mitra	1st Year (Sem. I & II) M.Sc in Food & Nutrition
Ms. Nandini Rohatgi	2 <sup>nd</sup> Year (Sem. III & IV) M.Sc in Food & Nutrition
Overall Performance	
Ms. Manya Kaushal	3rd Year (Sem. I to VI) B.Sc
Ms. Nandini Rohatgi	2 <sup>nd</sup> Year (Sem. I to IV) M.Sc in Food & Nutrition

## Department of TEXTILE SCIENCE, CLOTHING & FASHION STUDIES

Name of the Students	Toppers	
Ms. Anmol Chanani	1" Year (Sem. I & II) B.Sc	
Ms. Harshita Mandhana	2 <sup>nd</sup> Year (Sem. III & IV) B.Sc	
Ms. Amatullah Lucky	3 <sup>rd</sup> Year (Sem. V & VI) B.Sc	
Ms. Shivani Sarawagi	1* Year (Sem. I & II) M.Sc in Textiles & Clothing	
Ms. Shramana Mullick	2 <sup>nd</sup> Year (Sem. III & IV) M.Sc in Textiles & Clothing	
Overall Performance		
Ms. Amatullah Lucky	3rd Year (Sem. I to VI) B.Sc	
Ms. Shramana Mullick	2 <sup>nd</sup> Year (Sem. I to IV) M.Sc in Textiles & Clothing	

# Department of INTERIOR DESIGNING

Name of the Students	Toppers	
Ms. Vidhika Sonthalia	1" Year (Sem. I & II) B.Sc	
Ms. Ayesha Alam	2 <sup>nd</sup> Year (Sem. III & IV) B.Sc	
Ms. Maliha Haider	3rd Year (Sem. V & VI) B.Sc	
Overall Performance		
Ms. Maliha Haider	3 <sup>rd</sup> Year (Sem. I to VI) B.Sc	

#### Post-Graduate Diploma in Dietetics & Applied Nutrition

Name of the Students	Toppers	
Ms. Surbhi Bhartia	1st Year (Sem. I & II)	

## Department of HUMAN DEVELOPMENT

Name of the Students	Toppers
Ms. Anwita Paul	1" Year (Sem. I & II) B.Sc
Ms. Prachi Baid	2 <sup>nd</sup> Year (Sem. III & IV) B.Sc
Ms. Attiya Ali	3 <sup>rd</sup> Year (Sem. V & VI) B.Sc
Ms. Abiha Islam	1" Year (Sem. I & II) M.Sc in Human Development
Ms. Vidisha Sheth	2 <sup>nd</sup> Year (Sem. III & IV) M.Sc in Human Development
Overall Performance	
Ms. Saanchi Baid	3 <sup>rd</sup> Year (Sem. I to VI) B.Sc
Ms. Vidisha Sheth	2 <sup>nd</sup> Year (Sem. I to IV) M.Sc in Human Development

#### Department of COMMERCE

Name of the Students	Toppers	
Ms. Srishti Modi	1" Year (Sem. I & II) B.Com	
Ms. Nidhi Bohra	2 <sup>nd</sup> Year (Sem. III & IV) B.Com	
Ms. Aishwari Ghosh	3 <sup>rd</sup> Year (Sem. V & VI) B.Com with Spl. in Accounting and Finance	
Ms. Tanuka Agarwal	3 <sup>rd</sup> Year (Sem. V & VI) B.Com with Spl. in Marketing	
Ms. Zohra Nafis Ansari	3 <sup>rd</sup> Year (Sem. V & VI) B.Com with Spl. in Human Resource Managemen	
Ms. Prakriti Rudra	1 <sup>st</sup> Year (Sem. I & II) M.Com	
Ms. Tanushree Shah	2 <sup>nd</sup> Year (Sem. III & IV) M.Com with Spl. in Accounting & Finance	
Ms. Shubhika Agarwal	2 <sup>nd</sup> Year (Sem. III & IV) M.Com with Spl. in Marketing	
Overall Performance		
Ms. Muskan Agarwal	3 <sup>rd</sup> Year (Sem. I to VI) B.Com with Spl. in Accounting & Finance	
Ms. Tanuka Agarwal	3 <sup>rd</sup> Year (Sem. I to VI) B.Com with Spl. in Marketing	
s. Vamika Bhansali 3 <sup>rd</sup> Year (Sem. I to VI) B.Com with Spl. in Human Resource Manage		
Ms. Tanushree Shah	2 <sup>nd</sup> Year (Sem. I to IV) M.Com with Spl. in Accounting & Finance	
Ms. Shubhika Agarwal	2 <sup>nd</sup> Year (Sem. I to IV) M.Com with Spl. in Marketing	

#### Montessori Training

Name of the Students	Toppers
Ms. Shreeya Sangai	1" Year (Sem. I & II)

old Medals are conferred by the University to the student for standing first in the final year of the degree programme and College Management awards a gold medal with a 24 carat gold ginni upon completion of degree based on academic merit in all the years.

#### **Gold Medals Awarded by the University**

Name of Student	Department
Ms. Nandini Rohatgi	M.Sc. in Food & Nutrition
Ms. Shramana Mullick	M.Sc. in Textiles & Clothing
Ms. Vidisha Sheth	M.Sc. in Human Development
Ms. Tanushree Shah	M.Com
Ms. Manya Kaushal	B.Sc. (Hons.) in Food Science & Nutrition Management
Ms. Amatullah Lucky	B.Sc. (Hons.) in Textile Science, Clothing & Fashion Studies
Ms. Maliha Haider	B.Sc. (Hons.) in Interior Designing
Ms. Saanchi Baid	B.Sc. (Hons.) in Human Development
Ms. Muskan Agarwal	B.Com. (Hons.) with specialization in Accounting & Finance
Ms. Aayushi Bhartia	BBA with specialization in Finance



Name of Student	Department
Ms. Manya Kaushal	B.Sc. (Hons.) in Food Science & Nutrition Management
Ms. Amatullah Lucky	B.Sc. (Hons.) in Textile Science, Clothing & Fashion Studies
Ms. Maliha Haider	B.Sc. (Hons.) in Interior Designing
Ms. Saanchi Baid	B.Sc. (Hons.) in Human Development
Ms. Muskan Agarwal	B.Com. (Hons.) with specialization in Accounting & Finance
Ms. Aayushi Bhartia	BBA with specialization in Finance



# FINANCIAL SCHOLARSHIPS AWARDED BY THE COLLEGE

For Outstanding
Academic Performance

#### Semester-V (Session 2019-2020)

Department of FSNM: Ms. Vashni Kandru
Department of TCFS: Ms. Harshita Mandhana
Department of ID: Ms. Rukmini Rudra
Department of HD: Ms. Prachi Baid
Department of Commerce: Ms. Nidhi Bohra

#### Semester-VI (Session 2019-2020)

Department of FSNM: Ms. Neha Pandey
Department of TCFS: Ms. Avani Rathi
Department of ID: Ms. Rukmini Rudra
Department of HD: Ms. Prachi Baid

Department of Commerce: Ms. Vanshika Jhunjhunwala



# ANNUAL CONVOCATION

The 5<sup>th</sup> Annual Convocation was held on 25<sup>th</sup> January, 2020 at the Vidya Mandir Auditorium. Prof. Suranjan Das, Vice Chancellor, Jadavpur University graced the ceremony as the Chief Guest and Mr. Dhruba Mukherjee, Executive VP (Dailies), ABP Group was the Keynote Speaker.

This year a total of 460 students from the Science, Commerce and Management departments (Batch 2016-2019 for UG / 2017-2019 for PG) received their degrees.

A scintillating medals and awards ceremony was also part of the Convocation with ten students receiving the University Gold Medal for their outstanding performance and six 50 gms silver medals with 5 gm 24-carat gold medallion were also given as Sushila Devi Birla Memorial prize to the UG toppers (overall) by the College.







# PLACEMENTS (2019-20)



Sweta Agarwal, M.Com Associate CTC: Rs. 5.21Lacs



Service Delivery Center



Devangi Gandhi, M.Com
Associate
CTC: Rs. 5.21Lacs



Service Delivery Center



Hiral Kamani, M.Com Associate CTC: Rs. 5.21Lacs



Service Delivery Center



Aanchal Dalania, M.Com Young Debutant CTC: Rs. 5.03 Lacs





Aysha Akhtar, M.Com Senior Executive CTC: Rs. 4 Lacs

Deloitte.



Preet Nathvani, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Ritika Kithania, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Rashi Singhee, B.Com
Associate
CTC: Rs. 3.91 Lacs



Service Delivery Center



Shagun Bhansali, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Vedika Khaitan, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Vedika Kajaria, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Namrata Gupta, B.Com
Associate
CTC: Rs. 3.91 Lacs



Service Delivery Center



Rashi, B.Com
Associate
CTC: Rs. 3.91 Lacs



Service Delivery



Ritika Goel, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Ritika Saraf, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Pooja Yadav, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Sanjana Saraf, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Rishika Losalka, B.Com
Associate
CTC: Rs. 3.91 Lacs



Service Delivery Center



Muskan Agarwal, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Anuradha Dipali, B.Com
Associate
CTC: Rs. 3.91 Lacs



Service Delivery Center



Somya Saxena, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Megha Khattry, B.Com
Associate
CTC: Rs. 3.91 Lacs



Service Delivery Center



Nikita Parekh, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Sakshi Sanghvi, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center

# PLACEMENTS (2019-20)



Isha Sethia, B.Com CTC: Rs. 3.91 Lacs



Service Delivery



Vanshika Jhunjhunwala, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Diksha Agarwal, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Komal Kumari, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery



Saubhagyashree Ruia, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Rajnandini Ganai, B.Com Associate CTC: Rs. 3.91 Lacs



Service Delivery Center



Nandita Daga, B.Com Analyst CTC: Rs. 3.62 Lacs





Halima Ahmed, B.Com Analyst CTC: Rs. 3.62 Lacs





Rajni Shaw, M.Com Officer CTC: Rs. 3.62 Lacs





Shrestha Patikar, M.Com Officer CTC: Rs. 3.62 Lacs





Shrishty Agarwal, B.Com Executive Trainee-Strategic Partnership-Retail CTC: Rs. 3.5 Lacs

digit



Shreya Mehrotra, B.Com Executive Trainee-Strategic Partnership-Retail CTC: Rs. 3.5 Lacs

digit





Nidhi Bohra, B.Com Analyst CTC: Rs. 3.33 Lacs





Nayanika Brahma, B.Com Analyst CTC: Rs. 3.33 Lacs





Nehal Bansal, B.Com Analyst CTC: Rs. 3.33 Lacs





Shivani Lakhotia, B.Com Analyst CTC: Rs. 3.33 Lacs





Pragya Lahoti, B.Com
Dealer Bank Channel Manager
CTC: Rs. 3.33 Lacs





Muskan Kumari, B.Com Dealer Bank Channel Manager CTC: Rs. 3.33 Lacs





Pari Poddar, B.Com

Dealer Bank Channel Manager

CTC: Rs. 3.33 Lacs





Simran Mehra, B.Com Dealer Bank Channel Manager CTC: Rs. 3.33 Lacs





Rijuta Sethia, B.Com Key Accounts Manager CTC: Rs. 3.33 Lacs





Rupal Baid, B.Com Key Accounts Manager CTC: Rs. 3.33 Lacs





Simran Saraf, B.Com Key Accounts Manager CTC: Rs. 3.33 Lacs





Harsha Agarwal, B.Com Key Accounts Manager CTC: Rs. 3.33 Lacs



# PLACEMENTS (2019-20)



Aisha Samreen, B.Com **Key Accounts Manager** CTC: Rs. 3.33 Lacs





Parama Ghosh, B.Com Key Accounts Manager CTC: Rs. 3.33 Lacs





Kriti Das, B.Com Associate CTC: Rs. 2.64 Lacs





Ayushi Goenka, B.Com Consultant CTC: Rs. 2.58 Lacs



Service Delivery Center



Paridhi Agarwal, B.Com **Financial Analyst** CTC: Rs. 2.50 Lacs plus EPGDBM (Executive Post Graduate Diploma in Business Management course)



Vani Agarwal, B.Com Fellow CTC: Rs. 2.45 Lacs

**TEACHFORINDIA** 



Sadaf Sultana, M.Com Consultant CTC: Rs. 2.30 Lacs



Service Delivery Center



Shivangi Goel, B.Com **Graduate Trainee** CTC: Rs. 2.16 Lacs







WIPRO

Sweeti Kumari, B.Com **Graduate Trainee** CTC: Rs. 2.16 Lacs



GODREJ & BOYCE



Ananta Kumari, B.Com Sales Executive CTC: Rs. 2 Lacs (plus incentives)





Humaira Parveen, B.Com Account Manager and Co-ordinator CTC: Rs. 1.44 Lacs





Dipty Agarwal, B.Com Stipend: Rs. 13 Thousand p.m. for 3 months

Ovasundhara Fashion Jewelry LLP



Jahanvi Dassani, B.Com Management Trainee Stipend: Rs. 15 Thousand for 1 month

KESOWA



Jyoti Pandey, B.Com Management Trainee Stipend: Rs. 15 Thousand for 1 month

KESOWA



Khushboo Bajaj, M.Com Social Media Intern Stipend: Rs. 5 Thousand per month for 2 months









# PLACEMENTS (2019-20)



Protity Suvra Dey, M.Sc.(FN)
Junior Officer-Nutrition Therapy
CTC: Rs. 3.46 Lacs





Ankana Das, B.Sc.(FSNM)
Nutrition Specialist
CTC: Rs. 3.46 Lacs





Kanishka Baid, B.Sc.(TCFS)
Assistant Merchandiser
CTC: Rs. 1.2 Lacs





Vidhi Agarwal, B.Sc.(TCFS)
Assistant Merchandiser
CTC: Rs. 1.2 Lacs





Riddhi Bhayani, B.Sc.(ID)

Design Executive

CTC: Rs. 2.04 Lacs





Saakshi Kochar, B.Sc.(ID) Junior Designer CTC: Rs. 96 Thousand (plus travel allowance)

Rupande Shah



Khushboo Chhawchharia, B.Sc.(D) Junior Designer CTC: Rs. 84 Thousand (plus travel allowance)





Rishita Roy, B.Sc.(ID) Intern CTC: Rs. 84 Thousand (plus travel allowance)





Barkha Kharakia, B.Sc.(ID) Intern CTC: Rs. 84 Thousand (plus travel allowance)





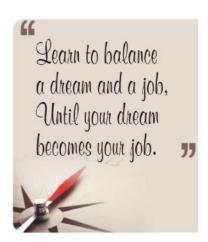
Meera S Pillai, B.Sc.(ID)
Assistant Fashion Designer
Stipend: Rs. 5 Thousand
per month for 1.5 months





Ankita Agarwal, B.Sc.(ID) Intern Stipend: Rs. 3 Thousand per month for 1.5 months





#### **HEADS OF DEPARTMENT**

(2019-2020)



Mrs. Samita Gupta
Head (Deptt. of Textile Science,
Clothing & Fashion Studies)

Wishing all my students who are brimming with a zeal for life to empower themselves with skills and creativity at JDBI. Do more than belong - participate, do more than believe - practice, do more than dream - work!!



JDBI has always stood for quality and excellence in education. Empowerment through Excellent Education in the making of vibrant individuals in the society is what we strive for. Let us all together aspire for a high-quality education backed up with ethical values which will eventually lead our country India into the progress path.

Mrs. Basudha Mukhopadhyaya Head (Deptt. of Commerce)

I have great pleasure in conveying my best wishes for this issue of JDBI TIMES. It is a commendable effort put forth by the team of students and faculty members. The release of this issue of JDBI TIMES has added value to their constant efforts and I wish the students "All the very Best" for their future endeavours.



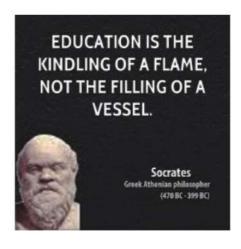
Mrs. Smita Parekh Head (Deptt. of Interior Designing)

If you have a passion for beautifying spaces, if creativity appeals to you, then your destination lies in JDBI. The Interior Designing department merges the latest innovations in technology, aesthetic details and splendid designs along with firsthand knowledge on different aspects and latest trends in the field of Interior Designing.



Dr. Adrija Saha Head (Deptt. of Food Science & Nutrition Management)

Nurturing creativity and inspiring innovation are two of the key elements of a successful education and a college magazine is the perfect amalgamation of both. It harnesses the creative energies of the academic community, and distils the essence of their imagination in the most brilliant way possible.



# TEACHER'S DAY CELEBRATION

Teacher's Day was celebrated by the College Management at Vidya Mandir Auditorium on 14<sup>th</sup> September, 2019. Faculty members were awarded for the best academic performance, publishing research papers in recognized journals and contribution towards the betterment of the college.

The College Management have decided to club the four Departments of Sciences into two categories-Arts (FSNM & HD) & Design (TCFS & ID) thus two faculty members from the Departments of Sciences were awarded for the Best Academic Performance (Session 2018-2019).

#### Best Academic Performance (Academic Session 2018-2019)



**Dr. Shweta Tuteja Rakshit** Deptt. of Textile Science, Clothing & Fashion Studies



**Dr. Anindita Deb Pal**Deptt. of Food Science &
Nutrition Management



Ms. Mahua Pal Deptt. of Commerce

#### Publishing Research Papers in Recognized Journals (Academic Session 2018-2019)



**Dr. Shweta Tuteja Rakshit** Deptt. of Textile Science, Clothing & Fashion Studies



**Dr. Rishiparna Guha**Deptts. of Science



Ms. Sweata Rani Rai Deptt. of Food Science & Nutrition Management



Ms. Sudeshna Pramanik Deptt. of Food Science & Nutrition Management



**Dr. Anindita Deb Pal**Deptt. of Food Science &
Nutrition Management



**Dr. Manika Das**Deptt. of Food Science & Nutrition Management

Significant Contribution Towards the Development of the Institute (Academic Session 2018-2019)



Mrs. Samita Gupta
Department of Textile Science,
Clothing & Fashion Studies



# **FACULTY ACHIEVEMENTS**

Felicitation of Prof. Deepali Singhee by the College Management of completing 25 years at J.D. Birla Institute







- Invited to join the CII Education Sub-Committee as a member.
- Inducted as a member of the reconstituted Governing Body of Shri Shikshayatan College, Kolkata for a tenure of three years.
- Felicitated by Indo British Scholars' Association (IBSA) for organizing the Fashion Show, Kaleidoscope, 2019 during the celebration for 70th year of BCL in India.
- Conducted two lectures on 'Eco-friendly & Sustainable Textiles' and 'Silk: The Queen of Fibres' as invited
  Resource Person at the UGC-sponsored Summer on Home Science organized by UGC-HRDC, Manipur University
  at Imphal.
- · Invited to deliver a talk on Education and its Relevance in India Today by Rotary Club of Calcutta.
- · Invited as a Chief Guest at Annual Junior Sports organized by Akshar School.
- Invited as a Panelist for a Discussion on Higher Education Policy 2019 by Taaza TV.
- Invited as a resource person for the webinar on Design Education: The New Future organized by ABP Education.com on 27<sup>th</sup> June, 2020.



- Dr. Manika Das (Assistant Professor, Department of FSNM) has been appointed a Reviewer by Current Research in Nutrition & Food Science, a journal enlisted in UGC-CARE and reviewed a paper, Possible Prophylactic and Therapeutic Foods for Prevention and Management of Covid-19.
- 3. Dr. Anindita Deb Pal (Assistant Professor, FSNM Department) has been appointed as Editorial Board Member by American Journal of Bio-Science published by Science Publishing Group, New York, USA [ISSN(p): 2330-0159 and ISSN(o) 2330-0167] and by International Journal of Food Science & Nutrition published by Gupta Publications, India [ISSN: 2455-4898].
- 4. Mrs. Mayuri Das Biswas (Head Librarian) has been elected as a Governing Body Member of the Indian Association of Special Libraries & Information Centers (IASLIC) and has been given additional charge of Editorial Assistant, IASLIC publication division.
- 5. Ms. Jiney Abraham, Assistant Professor, FSNM Department was appointed as reviewer in Journal of Food Science & Technology and reviewed the following papers:
  - Characteristics of blue mussels dried by traditional methods and comparison with the innovative methods.
  - Effect of gamma radiation on microbial load, physicochemical and sensory characteristics of common spices for storage.
  - Effect of different processing methods on nutrient and antinutrient composition of mung bean (Vigna radiata).



# PAPER PUBLICATIONS

#### BY FACULTY MEMBERS

- An Empirical Analysis to Study the Relationship between Profitability and Capital Structure Decisions in Indian Scenario in International Journal on Recent Trends in Business and Tourism, Volume 3 (Issue 3), July 2019, p 49-55 (ISSN: 25501526) by Dr. Arindam Banerjee (Assistant Professor, Management Department and Prof. J. N Mukhopadhyay (Director, Management Department).
- To Study the Quality of Life and Anxiety Level among Pre- Renal and Post-Renal Transplant Patients in Kolkata-25-40 Years in International Journal of Multidisciplinary Educational Research, Volume 8 (Issue 7), July 2019, p 38-46 (ISSN NO: 2277- 7881, Impact Factor of 6.014) by Ms. Geetika Sachdeva (Assistant Professor & HOD, HD Department).
- Effects of Natural Preservatives on Proximate Composition of Preserved Sea Fish, Processed under Traditional Cooking Methods in International Journal of Food & Nutrition Sciences, Volume 10 (Issue 4), October 2019, p 25-33 (ISSN No 2320-7876, Impact Factor: 1.021) by Ms. Uttiya Jana (Assistant Professor, FSNM Department).
- 4. Aal Dyeing Past and Present in **Journal of the Textile Association**, Volume 80 (Issue 4), November–December 2019, p 253-260 (ISSN No 0368- 4636, Impact Factor: 0.44) by Mrs. Amita Dutta (Assistant Professor, ID Department) and Prof. Deepali Singhee (Principal).
- Clostridium Difficile: A Growing Health Concern in Journal of Advanced Scientific Research, Volume 10 (Issue 4), November 2019, p 16-23 (ISSN No 0976-9595, Impact Factor: 0.567) by Dr. Anindita Deb Pal (Assistant Professor, FSNM Department).
- 6. A Study on Factor Affecting Customer Buying Decision of Detergent in India with Emphasis on Major Brands used in Kolkata in OJAS Expanding Knowledge Horizon An International Journal of Research in Management, Issue December 2019, p 12-18 (ISSN No (P) 2279-0373, (O) 2321-726X) by Mr. Ranjan Bhardwaj (Assistant Professor, Management Department).
- General Well Being and Life Satisfaction of Elderly in Kolkata, India in Indian Journal of Gerontology, Volume 34 (Issue 1), January 2020, p 96-112 (ISSN No 0971-4189) by Dr. Debolina Chatterjee (Assistant Professor, HD Department).
- Exploring self-care abilities among women in prison of West Bengal, India in International Journal of Prisoner Health, Volume 16 (Issue 2), p 185-198 Dr. Debolina Chatterjee (Assistant Professor, HD Department).
- Sustaining the future of traditionally woven Textiles of Koraput in Journal of the Textile Association,
   Volume 80 (Issue 5), January- February 2020, p 353-362 (ISSN No 0368- 4636, Impact Factor: 0.44) by
   Mrs. Amita Dutta (Assistant Professor, ID Department) and Prof. Deepali Singhee (Principal).
- Pathogenic profile of green coloured vegetables using different washing procedures in Annals. Food Science and Technology, Volume 20 (Issue 4), March 2020, p 793-799 (e-ISSN: 2344-4916, p-ISSN: 2065-2828) by Dr. Anindita Deb Pal (Assistant Professor, FSNM Department).
- Development and evaluation of heart healthy food product from green coffee extract in Annals. Food Science and Technology, Volume 20 (Issue 4), March 2020, p 832-840 (ISSN No 2065-2828) by Dr. Manika Das (Assistant Professor, FSNM Department).
- 12. Exploring factors influencing customer's decision making towards online grocery retail services in Kolkata in International Journal for Research in Engineering Application & Management (IJREAM), Volume 6 (Issue 2), May 2020, p 280-283 (ISSN: 2454-9150, Impact Factor- 6.466) by Dr. Namrata Maheshwari (Assistant Professor, Commerce Department).
- Assessment of the Sensory Acceptability of Soy Milk based Sandesh (Traditional Indian Sweet Dairy Dessert) for Elderly People (Aged>60 Years) Living in Kolkata and its Efficacy on the Health Status of Geriatric Population in Global Journal of Medical Research: Nutrition & Food Science, Volume 20 (Issue 1), June 2020, p 31-38 (ISSN (O) 2249-4618; ISSN (P) 0975-5888) y Ms. Sweata Rani Rai, (Assistant Professor, FSNM Department).

- Online social media use and behaviour among today's young adults in Global Journal for Research
   Analysis, Volume 9 (Issue 6), June 2020 (ISSN No 2277-8160, Impact Factor: 5.956) by Ms. Swati Tulshan (Assistant Professor, HD Department).
- Impact of various dimensions of consumer attitude in online cab services: An exploratory study in Journal of Emerging Technologies & Innovative Research (JETIR), Volume 7 (Issue 6), June 2020, p 1008-1014 (ISSN: 2349-5162, Impact Factor- 5.87) by Dr. Namrata Maheshwari (Assistant Professor, Commerce Department).
- Socio-economic aspects of women empowerment using microfinance A Case study in West Bengal in Alochana Chakra Journal, Volume 9 (Issue 6), June 2020, p 4395-4414 (ISSN No. 2231-3990) by Ms Swapnapriya Sethy (Assistant Professor, Commerce Department).
- 17. Role of Microfinance towards Personal Empowerment of Women: An empirical Study in Indian Journal of Economics and Development, Volume 16 (Issue 2), June 2020, p301-306 (ISSN No. 2277-5412) by Ms. SwapnapriyaSethy, (Assistant Professor, Commerce Department).
- Analysis of heat stress and its impact on thermal comfort in Research Journal of Physical Sciences, Volume 7 (Issue 3), September 2019, p 12-14, (ISSN No. 2323-4796) by Dr. Rishiparna Guha (Assistant Professor)



Ms. Mahua Pal Assistant Professor (Common) published an e-book, **Computer Fundamentals: An Overview with Kindle** on 4<sup>th</sup> June 2020.

# **CHAPTER PUBLICATIONS**



- Protein in a new way: single cell protein. Research Trends in Multidisciplinary Research. Akinik Publication, New Delhi, (2020), Chapter 5, Vol 15, 81-98 (ISBN: 978-93-89680-73-7) by Dr. Anindita Deb Pal (Assistant Professor, FSNM Department).
- Sustainable food: Algaculture. Research Trends in Food Technology and Nutrition. Akinik Publication, New Delhi, (2019), 1st Edition, Chapter 9, Vol 11, 127-148 (ISBN: 978-93-5335-859-4) by Dr. Manika Das (Assistant Professor, Department of FSNM).
- Medical interactions in prisons: Some reflections.
   Understanding Social Issues: Some Reflections. PAIOLCK,
   (2019), 1st Edition, Chapter 8, Vol 2, 91-101 by Dr.
   Debolina Chatterjee (Assistant Professor, HD Department).

- 4. Influencing customers through unique branding and positioning strategy: A case study of UBER. Breaking Down Language and Cultural Barriers through Contemporary Global Marketing Strategies. IGI-Global disseminator of Knowledge, (2019), Chapter 8, 128-144, (e-ISBN: 13:9781522569817; p-ISBN: 13:9781522569800) by Dr. Namrata Maheswari (Assistant Professor, Commerce Department).
- Government budgets, debts, deficit financing and its impact on economy-A study on different school of thought in Journal of Contemporary Issues in Accounting, Finance & Management published by Acharya Jagadish Chandra Bose College, May 2020, p 333-336 (ISBN No. 978-93-888-66-36-1) by Mr. Debjyoti Dey, (Assistant Professor, Commerce Department).
- Role of IT innovations in Financial Services. Changing Paradigm in Financial Services Marketing. Manakin Press Pvt. Ltd., 2019, pp165-174, ISBN: 978-93-86221-01-8 by Dr. Rishiparna Guha (Assistant Professor, Science & Commerce Department)



# PAPER PRESENTATIONS

- Understanding health of imprisoned women at an international conference on Women and Society organized by Department of Sociology Nur Mohammmad Smriti Mahavidyalaya, Murshidabad and Radha Govind University Ramgrah, Jharkhand held at Prof. Syed Nurul Hasan College, Farakka, Murshidabad on 8th July 2019 by Dr. Debolina Chatterjee (Assistant Professor, HD Department).
- Tagorean concept of library and open learning: Relevance in the present era at the IASLIC 28<sup>th</sup> National Seminar on LIS Education in India: Current Scenario & Future Strategies organized by Visva Bharati University, Shantiniketan on November 27<sup>th</sup> to 29<sup>th</sup> July 2019 by Mrs. Mayuri Das Biswas (Librarian-LRC, Main Campus).
- Role of micro-finance towards personal empowerment of women at one day eastern regional Conference on New Paradigms in Management organized by Association of Indian Management Schools (AIMS) in association with Bharatiya Vidya Bhavan Institute of Management Science (BIMS) on 24th August 2019 by Ms. Swapnapriya Sethy (Assistant Professor, Commerce Department).
- Medical interaction in prisons: Some reflections at SAMAGAM 2019, 5<sup>th</sup> International Social Science & Humanities Congress held at Jadavpur University on 7<sup>th</sup> September 2019 by Dr. Debolina Chatterjee (Assistant Professor, HD Department).
- Homomorphic encryption for business data security in Cloud at the International Conference on Emerging Perspectives in Commerce, Economics and Management - Transformation on the Global Economy (ICCEEM 19) organized by St. Xavier's College on 13th September 2019 by the college Ms. Mahua Pal (Assistant Professor, Science & Commerce Department.
- 6. Dissemination of open government data through Indian statistical system: A roadmap towards sustainable development at the IASLIC (Indian Association of Special Libraries & Information Centers) 32<sup>nd</sup> All India Conference 2019 on the theme, 'Future of Library and Information (LI) Profession in India' organized by University Library and held at Cochin University of Science & Technology, Kochi from 3<sup>nd</sup> to 5<sup>th</sup> December 2019 by Mrs. Mayuri Das Biswas (Librarian-LRC, Main Campus).
- 7. Employee volunteerism in CSR Study of Infosys and Tech Mahindra at the IMPRESS-ICSSR sponsored 2-Day 2<sup>nd</sup> International Conference on Innovative Business Practices in a VUCA World organized by St. Xavier's College in collaboration with Department of Commerce, University of Calcutta and Lincoln University College, Malaysia, on 3<sup>rd</sup> and 4<sup>th</sup> January 2020 by Mrs. Sucharita Basak (Assistant Professor, Commerce Department).

- 8. Measuring stakeholder satisfaction of educational institutions using technology in LMS at the IMPRESS-ICSSR sponsored 2-Day 2<sup>nd</sup> International Conference on Innovative Business Practices in a VUCA World organized by St. Xavier's College in collaboration with Department of Commerce, University of Calcutta and Lincoln University College, Malaysia, on 3<sup>rd</sup> and 4<sup>th</sup> January 2020 by Mr. Parantap Chatterjee (Assistant Professor, Commerce Department) and Mr. Swapnateet Saha (Assistant Professor, Commerce Department).
- 9. A study on the role of FDI & FII from the national growth perspective in a VUCA world at the IMPRESS-ICSSR sponsored 2-Day 2<sup>nd</sup> International Conference on Innovative Business Practices in a VUCA World organized by St. Xavier's College in collaboration with Department of Commerce, University of Calcutta and Lincoln University College, Malaysia, on 3rd and 4<sup>th</sup> January 2020 by Ms. Suchitra Kumari (Assistant Professor, Commerce Department).
- 10. Surplus production in agriculture: Entrepreneurial pathways at the IMPRESS-ICSSR sponsored 2-Day 2<sup>nd</sup> International Conference on Innovative Business Practices in a VUCA World organized by St. Xavier's College in collaboration with Department of Commerce, University of Calcutta and Lincoln University College, Malaysia on 3<sup>nd</sup> and 4<sup>th</sup> January 2020 by Ms. Sayani Biswas (Assistant Professor, Commerce Department).
- 11. Ageing in prisons: Need for social work intervention at the 2-Day National Seminar on Social Work Intervention with Elderly: Community Engagement, Social Responsibility and Social Work Profession organized by Department of Social Work, Visva Bharati University in collaboration with National Institute of Social Defence (NISD) Ministry of Social Justice & Empowerment GoI, New Delhi & Anthropological Survey of India, New Delhi on 18<sup>th</sup> & 19<sup>th</sup> January 2020 by Dr. Debolina Chatterjee (Assistant Professor, HD Department).
- 12. Mirgan panikas of Kotpad at 2-Day National Seminar on Social Work Intervention with Elderly: Community Engagement, Social Responsibility and Social Work Profession organized by Department of Social Work, Visva Bharati University in collaboration with National Institute of Social Defence (NISD) Ministry of Social Justice & Empowerment GoI, New Delhi & Anthropological Survey of India, New Delhi on 18<sup>th</sup> & 19<sup>th</sup> January 2020 by Mrs. Amita Dutta (Assistant Professor, ID).

# CONFERENCES/ SEMINARS/WEBINARS/WORKSHOPS ATTENDED BY FACULTY MEMBERS



Faculty : Prof. Deepali Singhee, Principal

Mrs. Samita Gupta, HOD & Asstt. Prof., Deptt. of TCFS Ms. Yamini Dhanania, Asstt. Prof., Deptt. of TCFS Mrs. V Sujitha, Asstt. Prof., Deptt. of TCFS Dr. Richa Chauhan, Asstt. Prof., Deptt. of TCFS

Seminar : Conference on Textiles & Apparel

Organizer : Indian Chamber of Commerce

(12th July, 2019)



Faculty : Dr. Debolina Chatterjee, Asstt. Prof., Deptt. of HD

Workshop : Innovative Teaching Skills for Indian

Classroom: Need of the Hour

Organizer : Bijoy Krishna Girl's College, Howrah

(29th & 30th July, 2019)



Faculty : Ms. Mayuri Das Biswas (Head Librarian)

Conference: Data Representation and

Organization Techniques

Organizer : Indian Statistical Institute, Bangalore in

collaboration with Drexel University, USA

(2<sup>nd</sup> to 4<sup>th</sup> July, 2019)



Faculty : Ms. Mayuri Das Biswas (Head Librarian)

Workshop : Specialized scanners for Archives entitled

Digitization: a different perspective

Organizer : Vikmans Multimedia India Pvt. Ltd

(15th July, 2019)



Faculty : Prof. Deepali Singhee, Principal

Orientation: Atal Ranking of Institutions on Innovation

Achievements (ARIIA) 2020

Organizer : Guru Nanak Institute of Technology, Kolkata

(13th August, 2019)



Faculty : Prof. Deepali Singhee, Principal Dr. Shweta Tuteja Rakshit, Asstt. Prof., Deptt. of TCFS & IQAC Coordinator

Seminar Disruptive Innovation in Higher Education

(2nd Edition of CII Higher Education of Indian Industry)

Organizer Confederation of Indian Industry, Eastern Region

(17th August, 2019)



: Prof. Deepali Singhee, Principal Faculty Ms. Damanjeet Kaur,

HOD & Asstt. Prof., Deptt. of FSNM

Seminar : Global Links India Alumni Connect Launch USA State Department of Global Women's Issues. Organizer

Tupperware Brands Corporation and Crummers -Graduate School of Business, Rollins College,

Florida, USA (22<sup>nd</sup> August, 2019)



: Prof. Deepali Singhee, Principal Faculty

: Academicians Meet Seminar

Organizer : Chinmaya Transformation Circle

(1st August, 2019)



: Ms. Swapanapriya Shetty, Asstt. Prof., Deptt. of Com. Faculty

Ms. Shreya Agarwal, Asstt. Prof., Deptt. of Com.

Seminar : New Paradigms in Management

: Association of Indian Management Schools (AIMS) Organizer

in association with Bharatiya Vidya Bhavan Institute

of Management Science (BIMS)

(24th August, 2019)



: Dr. Shweta Tuteia Rakshit, Asstt. Prof., Faculty Deptt. of TCFS & IQAC Coordinator

Mrs. Punam Mehra, Asstt. Prof., Deptt. of HD Ms. Yamini Dhanania, Asstt. Prof., Deptt. of TCFS Dr. Anindita Deb Pal, Asstt. Prof., Deptt. of FSNM Mr. Debjyoti Dey, Asstt. Prof., Deptt. of Com. Ms. Riddhi Jain, Asstt. Prof., Deptt. of Com.

Faculty Knowledge Sharing Program on Pedagogy in Digital Era Seminar

Organizer ICFAI Business School

(24th August, 2019)

#### faculty development initiatives



: Ms. Geetika Sachdeva, HOD & Asstt. Prof., Deptt. of HD

Mrs. Punam Mehra, Asstt. Prof., Deptt. of HD Ms. Swati Tulshan, Asstt. Prof., Deptt. of HD

Concert : Musical Concert (Swedish Pop band ABBA)

Organizer: Breaking through Dyslexia (16th August, 2019)



: Ms. Divya Mehta, Asstt. Prof., Deptt. of FSNM

Conference: 4<sup>th</sup> Diabetes Educator's International Conference (DAYDEIC), 2019 -Diabetes Educator-Time to Pair up

Organizer: Diabetes Awareness & You (DAY)

(8th September, 2019)



: Prof. Deepali Singhee, Principal

Mrs. Smita Parekh, HOD & Asstt. Prof., Deptt. of ID

Mrs. Basudha Mukhopadhyay, HOD &

Asstt. Prof., Deptt. of Com.

Dr. Shweta Tuteia Rakshit, Asstt. Prof., Deptt. of TCFS & IQAC Coordinator

Mrs. Geetika Sachdeva, HOD & Asstt. Prof., Deptt. of HD Ms. Damanjeet Kaur, HOD & Asstt. Prof., Deptt. of FSNM

Dr. Adrija Sarkar, Asstt. Prof., Deptt. of FSNM

Seminar : Innovating Education & Educating Innovation (5th edition of School Excellence Conclave)

Organizer: Confederation of Indian Industry (CII), Eastern Region

(23rd November, 2019)



Ms. Geetika Sachdeva, HOD & Asstt. Prof., Deptt. of HD Faculty

Dr. Adrija Sarkar, Asstt. Prof., Deptt. of FSNM

2nd Globalized Education Forum 2019 Seminar :

on Transpiring Intent to Reality

Indian Chamber of Commerce Organizer:

(8th November, 2019)



: Ms. Suchitra Kumari, Asstt. Prof., Deptt. of Com.

Crafting & Conducting Research and How to Publish Workshop:

Organizer: St. Xavier's College, Kolkata

(9th November, 2019)





Faculty : Ms. Sudeshna Pramanik, Asstt. Prof., Deptt. of FSNM

Ms. Divya Mehta, Asstt. Prof., Deptt. of FSNM

Webinar : 8th International Webinar on Nutrivigilance

Organizer : Signutra Inc. (Signature Nutrition), USA

(1st June, 2020)



Faculty: Mrs. A.S. Manjulakshmi, Asstt. Prof., Deptt. of Com.

Webinar : New Structural Reforms

Organizer : R.K.R Arts College for Women

(13th June, 2020)





Faculty: Dr. Promita Mukherjee, Asstt. Prof., Deptt. of Com. Ms. Nilanjana Roy, Asstt. Prof., Deptt. of Com.

: National Webinar on Emergence of New

Economic Order in the Post Covid Era

Organizer : Department of Commerce & Economics, Vijaygarh Jyotish Ray College, Kolkata

(17th & 18th June, 2020)



Faculty : Ms. Mahua Pal, Asstt. Prof., Deptt. of Com.

Webinar : Diving Deep to Learn

Organizer : Calcutta University

Webinar

(13th June, 2020)





Faculty: Mrs. Pritha Sen, Asstt. Prof., Deptt. of Com. Ms. Sucharita Basak, Asstt. Prof., Deptt. of Com.

Webinar : Al-Driven Marketing in Post COVID Era

Organizer : Department of Commerce,

Shri Shikshayatan College, Kolkata

(18th June, 2020)



Faculty : Ms. Nilanjana Roy, Asstt. Prof., Deptt. of Com.

Webinar : The Socio-Economic Impact of Covid-19 Pandemic:

The Indian Perspective

Organizer : Xavier's School of Economics, Xavier University, Bhubaneswar

(8th June, 2020)

#### faculty development initiatives



Faculty : Mr. Debjyoti Dey, Asstt. Prof., Deptt. of Com.

Webinar : Living with Lockdown: Lessons from India's COVID-19 Response and the Way Forward to Economic

Survival'

Organizer: Department of Commerce, Malda College, Malda and Department of Commerce and Economics, Sivnath Sastri College, Kolkata,

(5" June, 2020)

Webinar : Managing your Finances and Investments in Covid Times

Organizer: Department of Commerce, M.E.S. College of Arts, Commerce and Science, Malleswaram, Bangalore in Association

with Finmark Trainers India Pvt. Ltd.

(6th June, 2020)





: Ms. Heena Sachdeva, Asstt. Prof., Deptt. of TCFS Faculty

Ms. Arpita Singh, Asstt. Prof., Deptt. of TCFS

Swadeshi Bloom-Indian Crafts and Technology: Webinar

Impetus in the Pandemic era"

Organizer : Nirmala Niketan College of Home Science, Mumbai

(26th May, 2020.)



: Ms. Sayoni Biswas, Asstt. Prof., Deptt. of Com. Faculty

Webinar : Social Capital in the Time of Corona

: Seth Anandaram Jaipuria College Morning, Organizer

Department of Commerce supported by IQAC

(19th June, 2020)





: Ms. Sudeshna Pramanik, Asstt. Prof., Deptt. of FSNM Faculty

Ms. Divya Mehta, Asstt. Prof., Deptt. of FSNM

Nutritional deficiency of common Indian people and how it makes way for diseases Webinar

in the present scenario

: The Indian Dietetic Association, Bengal Chapter Organizer

in association with Smart Management Consultancy

(12th May, 2020)



Faculty : Mr. Swapnateet Saha, Asstt. Prof., Deptt. of Com.

Webinar Mathematical Perspective of Covid-19 Outbreak:

Predictions, Precautions & Amp; Preventive Measures

Organizer : Sidhu-Kanho-Birsha University, West Bengal, Purulia

(11<sup>th</sup> & 12<sup>th</sup> June, 2020)



: Ms. Sucharita Basak, Asstt. Prof., Deptt. of Com. Faculty

: Learning Statistics and Data Analysis Webinar

Using Ms Excel

Simple Statistics Solution and Training Provider (SSSTP), Organizer

Tirunelveli, Tamilnadu

(19th to 21st June, 2020)

## FACULTY & STAFF TEAM BUILDING EXCURSION





A Team Building Excursion was undertaken by faculty & administrative staff on 25th & 26th November, 2019 to Raichak on Ganges. Forty four faculty members & twenty three administrative staff members including the Principal participated. Several team building games were organized and were conducted by Mr. Divyak Doshi & Mr. O'Neil Pramanik from M/s. Champaklal & Bros.





#### faculty development initiatives

















### FACULTY DEVELOPMEMT

Dr. Anindita Deb Pal (Assistant Professor, FSNM Department) completed a **Refresher Course** on 'Emerging Areas of Life Science (IDC)' organized by UGC-HRDC, Jadavpur University from 27<sup>th</sup> January, 2020 to 8<sup>th</sup> February, 2020.



Ms. Swati Tulshan (Assistant Professor, HD Department) attended a shortterm course on 'Soft-skills and Entrepreneurship Development' organized by Viharilal College of Home

Science from 3<sup>rd</sup> January to 9<sup>th</sup> January, 2020 as a part of her Ph.D coursework.



Ms. Radhika Daga (Assistant Professor, HD Department) cleared the **UGC-NET exams** held in December 2019.



Dr. Promita Mukherjee Assistant Professor, Commerce Department completed a MOOC titled '**Learning to Teach Online**' under The University of New South Wales, Sydney through Coursera.



Who dares to TEACH must never cease to LEARN

## STUDENT'S GENERAL ELECTION, 2019

General Elections for the Student's Administrative Body (SAB) for academic year 2019-20 were held on 14<sup>th</sup> August 2019, where all students and faculties voted for their favorite candidate. Student's Council (SC) was formed through internal voting between the members of the SAB on 20<sup>th</sup> August, 2019. On October 25<sup>th</sup> 2019, the Badge Ceremony was organized and the badges were given to the elected Student Council Members of the session 2019-2020.







Head Girl	Shivangi Daga (Dept. of FSNM)
Class Representative	Sayanti Banerjee (FN), Yashvi Makdani (TC)
PG (2 <sup>nd</sup> Year)	Abiha Islam (HD)
Class Representative	Sakshi Dugar (FN), Meghna Agarwal (TC)
PG (1St Year)	Priyanka Arora (HD)
Class Representative PGDDAN	Tafseer Zahra
Class Representative	Muskaan Gupta (Dept. of FSNM), Preksha Shah (Dept. of TCFS)
UG (3rd Year)	Payal Raj Singh (Dept. of ID), Stuti Gupta (Dept. of HD)
Class Representative	Falah Ismail (Dept. of FSNM), Preksha Shah (Dept. of TCFS)
UG (2 <sup>nd</sup> Year)	Prishita Agarwal (Dept. of ID), Shiwangi Nagar (Dept. of HD)
Class Representative	Santanika Tiwari (Dept. of FSNM), Disha Mundhra (Dept. of TCF
UG (1St Year)	Erum Feroz (Dept. of ID), Rohini Ghosh (Dept. of HD)

Head Girl	Nidhi Bohra (3 <sup>™</sup> Year, Section - A2)
Class Representative PG (2 <sup>nd</sup> Year)	Khushboo Bajaj
Class Representative PG (1St Year)	Ashna Jaiswal
Class Representative UG (3 <sup>rd</sup> Year)	Shagun Bhansali (Accounting & Finance-1) Nikita Bahrus (Accounting & Finance-2) Shrishty Agarwal (Accounting & Finance-3) Megha Churiwala (Section B) Akansha Agarwal (Section C)
Class Representative UG (2 <sup>nd</sup> Year)	Saakshi Purohit (Sec-A), Bhavika Sharma (Sec-B), Divya Jhunjhunwala (Sec-C), Shabari Vidyanand Sah (Sec-D), Meghna Agarwal (Sec-E)
Class Representative UG (1 <sup>St</sup> Year)	Payal Surana (Sec-A), Neha Choraria (Sec-B), Sushmita Kshatri (Sec-C), Simran Sadhwani (Sec-D), Khushi Jain (Sec-E)



Shivangi Daga	Head Girl (Science) B.Sc. (FSNM)
Nidhi Bohra	Head Girl (Commerce) B.Com. (A2)
Erum Feroz	Class Event Coordinator 1st Year B.Sc. (ID)
Falah Ismail	Class Event Coordinator 2nd Year B.Sc. (FSNM)
Preksha Shah	Class Event Coordinator 3rd Year B.Sc. (TCFS)
Meghna Agarwal	Class Event Coordinator 1st Year M.Sc. (TC)
Tafseer Zahra	Class Event Coordinator PGDDAN
Payal Surana	Class Event Coordinator 1st Year B.Com. (A)
Divya Jhunjhunwala	Class Event Coordinator 2nd Year B.Com. (C)
Shrishty Agarwal	Class Event Coordinator 3rd Year B.Com (Acct. & FinIII)
Khushboo Bajaj	Class Event Coordinator 2nd Year M.Com.

JDBI TIMES 2019-2020 | 41



by Mrinmoyee Sinha\*

In search for health, one's attention is constantly drawn to the evolutionary aspects of man's nutritional needs, the so-called cave-man diet. Everyone knows that man did not have sugarcane during the stone age and probably the only direct source for fructose, sucrose and glucose was fruit and vegetables with the exception of nectar from flowers and its concentrate, honey from wild bees.

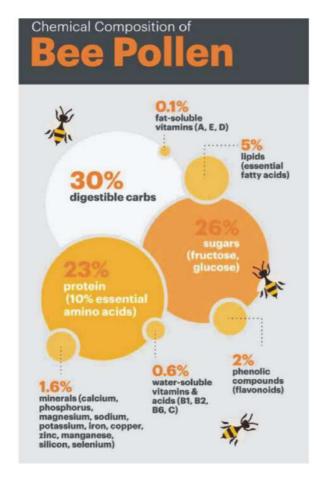
Pollen that is collected by honey bees is referred to as Bee Pollen. Bee pollen is a ball or pellet of field-gathered flower pollen packed by worker honeybees, and used as the primary food source for the hive. It consists of simple sugars, proteins, minerals, vitamins, fatty acids, and a small percentage of other components. Natural health practitioners promote it as a superfood due to its nutrient-rich

profile that includes tocopherol, niacin, thiamine, biotin, folic acid, polyphenols, carotenoid pigments, phytosterols, enzymes, and coenzymes.

Bee pollen is a raw material from which bees produce bee bread, or ambrosia. They collect pollen from plant anthers, mix it with a small dose of the secretion from salivary glands or nectar, and place it in specific baskets (corbiculae) which are situated on the tibia of their hind legs. These are called pollen loads. The field bees collect and transport the bee pollen to the hive.

The collected pollen is stored in brood cells, mixed with saliva, and sealed with a drop of honey by flightless bees packed in honeycomb cells. Next, the surface of the collected pollen is covered with a thin layer of honey and wax. The substance which has been created is bee bread which undergoes anaerobic fermentation and is thus preserved due to the arising of lactic acid. Bee bread constitutes the basic protein source for the bee colony. Moreover, it is also the source of nutritional and mineral substances for royal jelly produced by worker bees

Bee pollen occurs in the anthers of seed plants in the form of 2,5-250µm grains. The grain dust is encompassed inside a double-layered cell wall. The internal cell wall is called intine, while the external one is called exine. The exine defines itself by a strong resistance to physicochemical factors. Furthermore, on its surface, there are numerous pores and furrows as well as a layer of balsam which facilitates sticking of the pollen to bees' abdomen.



Depending on the plant species, pollen grains differ in shape, color, size, and weight. Further shape of the grains are also diverse, they can be round, cylindrical, bell-shaped, triangular, or thorny. Their weight is equal to a dozen or several dozens of micrograms. Majority of the pollens consist of single grains which are sometimes joined with two or more grains.

The color of the pollen is varied and ranges from bright yellow to black. The pollen basket, which is brought to the hive, usually consists of the pollen from one plant. The group of plants from which only pollen is collected includes poppy, corn, and lupine, while from other melliferous plants bees collect both nectar and pollen. Bees do not collect pollen from grass. However, they may occasionally collect fungal spores from moldy plants.

'It takes one bee working eight hours a day, one month to gather just one teaspoon of bee pollen granules. That small teaspoon of bee pollen granules contains a whopping 2.5 billion grains of flower pollen. Bee pollen benefits are more apparent when we consider the magnitude of the nutrient density in each little granule'.

#### Therapeutic Property

Bee pollen is used around the world for medicinal and therapeutic purposes. It has numerous health benefits, which are due to the range of antioxidants, amino acids and micronutrients found in the pollen. A variety of primary and secondary metabolites contained in bee pollen exhibit a wide range of properties and bioactivities, i.e. anti-oxidant, anti-inflammatory, anti-carcinogenic, anti-bacterial, anti-fungicidal, hepatoprotective, and anti-atherosclerotic activities capable of modifying or regulating immune functions.

#### Anti-oxidative Effects

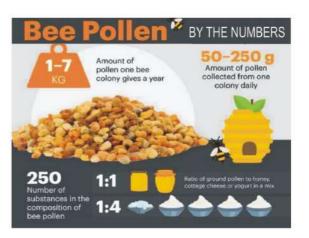
Bee pollen is perhaps attributable to the activity of antioxidant enzymes as well as to the content of secondary plant metabolites such as phenolic substances, carotenoids, vitamin C, vitamin E, and glutathione. Bee pollen contains, quercetin, caffeic acid, caffeic acid phenethyl ester (CAPE), rutin, pinocembrin, apigenin, chrysin, galangin, kaempferol and isorhamnetin.

#### Anti-inflammatory Effects

Pollen compounds (e.g. polyphenols or flavonoids) may exert beneficial effects on numerous cells which play a crucial role in host defence against invading

pathogens and in inflammatory processes. The antiinflammatory action of flavonoids may result from the activity of quercetin, which inhibits the arachidonic acid metabolism. A decrease in the arachidonic acid level reduces the level of proinflammatory

It takes one bee
working eight hours a
day, one month to
gather just one
teaspoon of bee pollen
granules. That small
teaspoon of bee pollen
granules contains a
whopping 2.5 billions
grains of flower pollen





prostaglandins and provides anti-inflammatory effect. The anti-inflammatory and analgesic action of flavonoids in bee pollen helps relieve pain and prevent platelet aggregation.

#### Anti-carcinogenic Activity

The anticarcinogenic activities may be derived from its antioxidant properties, i.e. suppression of oxygen reactive species (ROS) formation and removal or inactivation of oxygen reactive species. There are also reports about the ability of bee pollen to induce apoptosis and stimulate secretion of tumour necrosis factor-alpha.

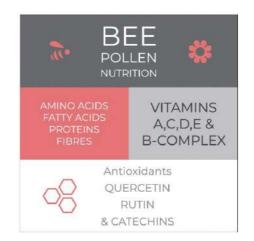
#### Hepatoprotective and Detoxifying Activity

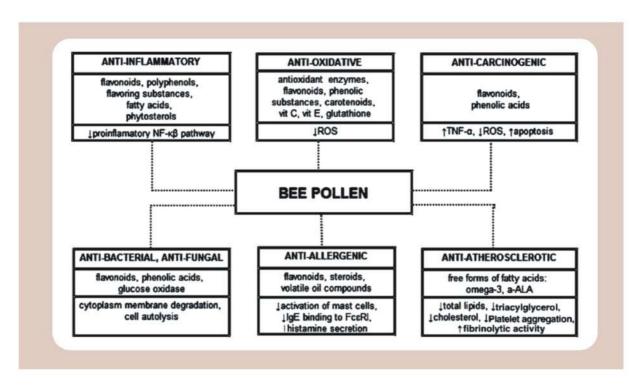
In several studies on animals, pollen bioactive substances have been reported to improve liver function. Pollen extracts have been found to lower pathological levels of enzymes and bilirubin present in the blood of individuals poisoned with organic compounds or drugs. This detoxifying pollen activity is associated with the presence of polyphenols, mainly flavonoids and phenolic acids.

#### Anti-microbial Activity

Pollen also helps prevent infection because of its antimicrobial activity, allowing a wound or burn to heal quickly.









#### Health Benefits of Bee Pollen

#### Promotes Healing of burns

Bee pollen can be used as a topical ointment to speed up the healing of burns and is especially useful as a home remedy for burn relief. The pollen includes kaempferol, which inhibits the activity of enzymes after a burn and decreases inflammatory reactions and swelling.

#### Prevents Ageing

Because pollen is a great source of many vitamins and minerals; it can also help keep the skin looking younger and glowing. It stimulates blood supply to the skin cells, helps detoxify the body, reduces the appearance of wrinkles and speeds up the healing process.

#### Helps Relieve Stress

Because of the nutrition facts and tonic properties of bee pollen, it improves blood supply to nervous tissue, boosting mental capacity and strengthening the nervous system that may be weakened due to stress. That makes it one of the most effective natural stress relievers. It may be particularly useful for people with a lack of energy, especially the elderly. Even small doses of bee pollen over an extended period of time improves mood and physical endurance.

#### Serves as a Dietary Supplement

Diet supplementation with bee pollen results in strengthening muscle function and increasing body mass. Moreover, bee pollen supplements have shown a positive effect on probiotic viability on increased apparent viscosity of fermented milk beverages.

#### Safety of Bee Pollen

Bee pollen appears to be safe for most people, at least when taken for a short term i.e. 30 to 60 day period, depending on the dosage. A lower dose can be consumed with a bee pollen mixture.

The biggest safety concerns about bee pollen are the allergic reactions, which may be an issue for people who are allergic to pollen. Serious allergic reactions to bee pollen have been reported, including potentially life-threatening anaphylaxis. Symptoms can include itching, swelling, shortness of breath, light-headedness and severe whole-body reactions.

There is also some concern about bee pollen stimulating the uterus and threatening pregnancy, which is why pregnant women should avoid using pollen or use it under guidance of a health care provider. Woman should also avoid using bee pollen during breastfeeding. It can also cause increased bleeding if taken with certain blood thinners like warfarin.







# CLICK-POST-LIKE-EAT VISUAL HUNGER TO DIGITAL SATIATION

by Sadhika Nagar\*

A fter some chatter, and patient waiting, the food arrives on the table. But what happens? Everyone takes out their phones to capture the food with "Camera's eat first age", a meal out cannot start without first photograph of the meal and sharing it on social media. People do not mind standing on chairs or tables to get the best angle. Some would even let their dishes or drinks get cold during this process. It is all about the perfect picture that they can subsequently post on Instagram.

Much of the research on food available on social media has been focused on the behavioural aspects of social media user. Several researches focus on changes that happen to the communicator's brain system when they see photos of food.

One of the brain's key roles is to facilitate foraging and feeding. It is presumably no coincidence, then, that the mouth is situated close to the brain in most 'The Influence of media on cultural and social practices including eating habits over the recent decade is extensive. It is controlling how consumers THINK about, TALK about and above all EXPERIENCE food

animal species. "We eat first with our eyes." Various studies have shown that humans rely heavily on their eyes while consuming food. When we eat, we perceive not only the taste and aroma of food, but we also get a sensory input from our surroundings - our eves, ears, even our memories about surroundings. Studies on human neuroscience show, that viewing food photos can lead to changes in neural activity, physiological responses, behavioural responses, and visual attention. It may increase the viewer's visual hunger.

There is also a growing number of studies highlighting ways in which food communication is perpetuated through different types of social media applications. Social media constitutes a platform in which food maintains a substantial presence; this could become an effective tool in tackling the global overweight epidemic.

Every year, millions of food pictures are posted on social media. Instagram is the most popular medium for all those picture-perfect dishes, snacks and drinks. 'Instagrammable' food has become a lifestyle,

> especially for millennials - the generation between roughly 18 to 36 years old. They are always in search of the perfect photograph, with immaculately composed food on a perfect plate in a perfect setting.

Thanks to Instagram influencers and a host of foodie bloggers, food has become a clickable #Status Symbol,

and it has completely changed the way we eat. These days, many choose to wait in line for hours, just to try the latest rainbow cookie dough burger and post about it on social media. Whether it is actually tasty seems secondary. It is all about being "SOCIAL AND CONNECTED"

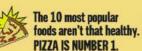


#### THE PSYCHOLOGY OF **FOODSTAGRAMMING**





23% of Instagram users keep a photoblog with DAILY MEAL PHOTOS.





22% of food photos are of self-cooked meals TO SHOW OFF TALENT.





The concept of visual hunger is divided into four concepts: neural (response), physiological changes, behavioural and visual attention. In neural response, the participant responds more quickly and also more accurately to high-calorie food photos than lowcalorie food photos. The photographs tend to affect the psychological thoughts of the individual also. There is an increased production of saliva (salivation). Besides that, the heart rate of the individual increases and there are changes in the cephalic phase that releases insulin.

To better understand food and its complex relationship with social media, we need to consider how diets and food habits connect people culturally. While food and nutrients are necessary for human survival, they also function as important objects in culture and as rich sources for metaphor. Culture thus becomes a primary factor that dictates human eating behaviours, which suggests that the social meaning and metaphors of food can affect food choices and implicate which types of food confer social acceptance.



#TASTY #NUTRITIOUSMEAL INSTAGRAMMABLE FOOD



## 3D FOOD PRINTING

by Syed Afrien\*

dditive manufacturing or what is now popularly known as 3D printing, has seen tremendous growth in the technogical sector over the past few years. There has been a steep rise in the number of products being printed three dimensionally, from concept cars to guns, children's toys to prosthetics, houses, etc. With its new found popularity and the potential to disrupt a variety of industries, 3D printing is now also finding vast acceptance in the food industry. The concept is based on a tabletop 3D printer that can print affordable and tasty meals without the extensive need for the knowledge of cookery. Although in its nascent phase, 3D printing is poised to change the future of the food industry, and its impact is already being felt on a global scale. The origins of this technology dates back to 1984 when Charles Deckard Hull developed Stereolithography (SLA). Although the history of 3D Food Printing is less than 15 years old, the desire of a rapidly fabricating custom-made food was expressed early in the 1960s through the movie, Star Trek. Thereafter, various 3D systems were created and though they had certain disadvantages; their potential was undeniable. The first known open source printers capable of printing food was developed at Cornell University, USA around 2005 by Hod Lipson, an engineer along with other collaborators. The idea of creating 3D decorations on the cake surfaces using hand cream extruders may be considered as the precursor of 3D Food Printing process. The latter is an automated version with computerized design pattern for fabrication compared to the previous manual process.



The concept of 3D printing is very straightforward, wherein a 3D printer acts in the capacity of an industrial robot, and helps to create models which are either designed using CAD or via a 3D scanner. 3D printed

objects if used with a well-calibrated printer can incredibly be close to its design source. Threedimensional (3D) Food Printing, also known as Food Layered Manufacture is a digitally controlled, robotic construction process which can build complex 3D food products layer-by-layer. The revolutionary food manufacturing technique precisely mixes, deposits, and cooks layers of ingredients, so that users can easily and rapidly experiment with different material combinations. With this technology, food can be designed and fabricated to meet individual needs, depending on specific health conditions and physical activities, by adjusting and controlling the amount of printing material to suit individual nutrition requirements. It integrates additive manufacturing and digital gastronomy techniques to produce 3D custom-designed food objects without object-specific tooling, molding or human intervention.

Food printer platform basically consists of a XYZ three axis stage (Cartesian coordinate system), dispensing/sintering units, and a user interface. With computer controlled three axes motorized stage and material feeding system, such platforms can manoeuver food in a real-time way. Food composition can be deposited/sintered essentially point by point and layer by layer according to a computerized design modeling and path planning configuration. In order to invent and personalize new dishes rather than simply automate traditional food fabrication process, at least four functions are proposed: metering, mixing, dispensing and cooking (heating or cooling). Currently, only the dispensing and cooking functions are available in the commercial or self-developed food printing platforms.

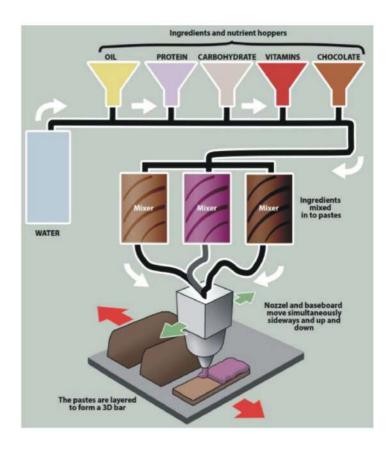
#### **Techniques Used**

#### Extrusion based Printing / Fused Deposition Modelling (FDM)

It is most commonly employed for 3D printing of food. Also known as the Hot-melt extrusion method, it combines the principle of extrusion and deposition. Materials used in this method are either solid based or in paste form. Fused deposition manufacturing involves applying material extruded from the nozzle



layer-by-layer, and the nozzle may be heated. The extruded material is heated slightly above its melting temperature, so as to solidify almost immediately after extrusion and weld to the previous layer. This type of n of the present



printer can be equipped with one or more extruders, which enables simultaneous printing of several components. The example of food, fabricated through this technique, is dough, meat paste and cheese. This method finds its application in making candies, chocolates, decorations made of sugar and in confectionery. The food printer designs based on FDM has a compact size, and has a relatively low maintenance cost. The disadvantages associated with this printing included appearance of seam line between layers, long fabrication time, and delamination. This hurdle has been solved by improvisation of the present technique and formulation of novel methods including Binder Jetting Technology and Inkjet Food Printing.



#### Binder Jetting Technology

It combines the principle of power binding and binder drop-on demand deposition. Materials suitable for this technology are generally liquid, powder based. In this technology, food materials or binders are successively deposited on to the powder bed surface through nozzle. The droplets of binders are usually of diameter less than 100µm. After deposition of the liquid binder, the entire surface of



the powder bed is exposed to a fixed amount of heat, commonly done using a heat lamp. The purpose of this step is to establish an appropriate mechanical strength by means of partially cured binder within the generated layer to withstand the shear and gravitational

compressive forces involved in the spreading and printing of subsequent layers. These steps are repeated for each layer until the whole feature is completed. The advantages of this technology includes support structures required in layer fabrication, very high production speed, conduction of complex 3D food fabrication with ease and low cost materials but suffers from rough surface finish and high machine cost. This type of method finds application in making chocolate, pizza (powder form) and counterfeit foods.

#### Inkjet Printing

It works using principle of drop-on demand deposition and continuous jet printing. This technology uses liquid based, low viscosity materials. There are two variations in this method: continuous jet printing and drop-on demand printing. In the first type, an ink is ejected

continuously through a piezoelectric crystal by vibrating it with a constant frequency; while

for drop-on-demand printer, a valve is used

to control the amount of ink to be ejected out from heads under designed pressure. The printing rates of drop-on-demand systems are generally slower than the continuous jet systems. However, the resolution and precision of produced images are higher. The

inkjet printing method finds application in creating surface filling or decorating food surfaces, such as cookie, cake, and pizza; but does not find application in constructing complex food structure. Examples of typical deposited materials are chocolate, liquid dough, sugar icing, meat paste, cheese, jams and gels. Sugars and sugar-rich powders can be selectively sintered to form complex shapes. After a layer of fresh powder is spread, a sintering source will move along X and Y axes to fuse powder particles so that they can bind together and form a solid layer. This process is repeated by continuously covering the fused surface with a new layer of material particles until completing a 3D object.

#### Selective Sintering Technology

It can be used to make food-grade art objects and toffee shapes. The powder bed is heated to just below

melting point of the material to minimize thermal distortion and facilitate fusion to the previous layer. This process is repeated by continuously covering the fused surface with a new layer of material particle until a 3D object is formed.



Selective sintering offers more freedom to build complex food items in a short time without postprocessing. This technology is suitable for materials with relatively low melting point such as sugar or sugar based products.

#### **Printing Components**

The components for food printing are divided into three categories:

- 1. Natively printable materials
- 2. Non-printable traditional food materials
- 3. Alternative ingredients

Natively printable materials are those that can be extruded smoothly from a syringe, such as chocolate, cake frosting, hydrogel, cheese, hummus, pasta dough, butter and jelly. However, it also includes materials in the form of powder, such as sugar and starch. Some traditional foods that have been successfully tested are like pasta, a material for the production of which has been judged by the viscosity, consistency and solidifying properties. Food products made by natively printable materials can be modified completely based on taste, nutritional value, and texture.

The non-printable traditional food materials include meat, rice, vegetables and fruits. In order to make them suitable for extrusion used in 3D printing, hydrocolloids like xanthan gum and gelatine are added.

Alternative additives like insect powder are still in the stage research and development. It is being studied as a protein source to replace traditional meat. Ideally ingredients of the subject should be pureed, gel-like, molten, powdered, liquefied or in the form of a dough. These textures are used to ensure smooth functioning of 3D printers. Ingredients extracted from algae, fungi and seaweeds can also be printed three dimensionally.

Food printers may become part of an ecology system, where networked machines would order new ingredients, prepare favourite food on demand and also collaborate with doctors to develop healthier diets

#### CHOC EDGE

In 2012, the first commercially available 3D chocolate printer was launched officially to the market by a company named the Choc Edge Ltd., UK. The device was called Choc Creator and it works on FDM technology and creates 3D edible chocolate models. The chocolate is melted and heated in syringe and is applied layer by layer to obtain the final product. Since then, new models were introduced by this and other companies.

#### **CHEFJET**

Another series of 3D printers called ChefJet series printers are also available. This printer is able to create three-dimensional edible creations with sugar with high level of complexity. The printed products formulated may have different flavours, such as chocolate, vanilla, mint, apple, watermelon or cherries.

#### BOCUSINI

Another example is a Bocusini 3D food printing system, which is a simple, economical printer which can be used for products made of sugar, chocolate, sweet jellies, pastries and marzipan, cheese, mashed potatoes and vegetables, as well as ground meat. The printer can also create patterns and inscriptions on user's request apart from making products in the form of flowers and figures.

#### CHOCOBOT

The first commercial chocolate 3D printer made in India is named the ChocoBot. This printer not only prints directly with chocolate but can also print using poly-carbonates which can then be used as a mould with liquid chocolate. The liquid chocolate is frozen in the mould and the mould can thereafter be removed.

#### FOODINI

Foodini, another invention now available in India is the first 3D food printer kitchen appliance that combines technology, food, art and design and uses real, fresh ingredients to contribute to healthy eating.







ChefJet



Bocusini



ChocoBo



Foodini

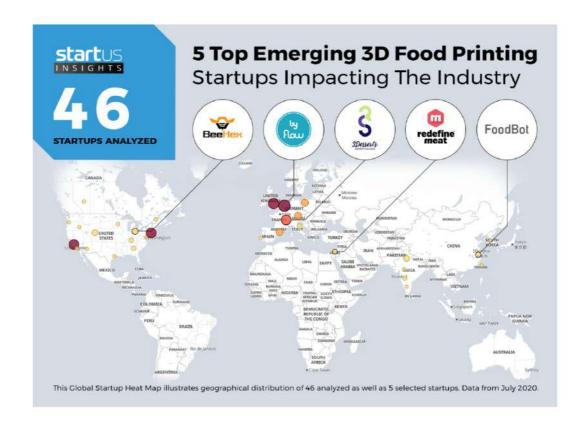
3D printed foods add artistic capabilities to fine dining and extends mass customization capabilities to the culinary sector. This technology finds widespread application in providing personalized nutrition, sustainable food, simplifying customized foods supply chain, reformulating food processing technologies, facilitating space explorations as well as reducing food wastage. 3D food printing enables a precise control of an individual's diet, and ensure fresh and healthy dishes that exactly meet their needs and preferences.

Unlike manually customized food fabrication, 3D printing of food does not require a huge set-up cost. Thus, it is extremely economical for the company. Since food can be customized in shape, colour, texture, flavour as well as nutrition; it proves to be very useful in various fields such as space exploration and healthcare.

Various organizations and restaurants including National Aeronautical and Space Administration (NASA), The Hersey Company and Mélisse use 3D printing due to its increasingly important role in food processing. This technology can help in reducing food wastage and



enhancing environmental sustainability. It can also help in alleviating world hunger by efficient use of available foods and use of alternative food sources.





## SUGAR

by Priya Shukla\*

ugar, which refers usually to sucrose, a disaccharide, is a natural, sweet- tasting, water soluble crystalline carbohydrate; every gram of which added to the diet provides four calories.

Sugar obtained from sugarcane and sugar beet is one of the most widely consumed sweetening agents. Other natural sources include fruits, honey, grain and milk. Owing to their ill health effects on surplus consumption of sugar in the form of obesity, diabetes and tooth decay, a search for alternative sources of sweeteners devoid of health hazards has been explored by many.

A sugar substitute is a food additive, which mimics the effect of sugar on taste while containing significantly less food energy than sugar-based sweeteners, making it a zerocalorie or low-calorie sweetener.

Substitutes can be either natural or artificial. Artificial sweeteners may be derived through manufacturing of plant extracts or processed through chemical synthesis. Natural sugar

Sugar has no nutritive value and is an addiction that is hard to break. It is a prime enemy to human health. Hence, replacing normal sugar with the unconventional one may be beneficial.

substitutes are those that occur naturally in certain fruits, vegetables and leaves.

The production and use of unconventional sugar dates back to 1992, when coconut sap was used by Indonesians to prepare coconut sugar. These unconventional sugars are yet again gaining importance due to their low-calorie content.

\* PGDDAN Student JDBI TIMES 2019-2020 | 53

#### Properties that an acceptable sweetener of commercial utility must possess

- · Sufficient sweetening power
- · No unpleasant aftertaste
- Non-carcinogenic & non-mutagenic
- · Reasonably inexpensive
- · Thermo-stable (i.e. resists cooking temperatures)
- · Little or no calories

#### **Classification of Sweeteners**

Sweeteners, which give food a sweet taste, are classified as Carbohydrate Sweeteners (caloric) and Non-Carbohydrate Sweeteners (noncaloric). Caloric sweeteners are also called nutritive/bulk sweeteners and include sugar and natural modified sugars.

The non-caloric sweetening agents are also called non-nutritive sweetening agents, as they have no caloric value and cannot be fermented by microorganisms of the oral cavity. The noncaloric sweeteners are generally much sweeter than sucrose and can, therefore, be used in smaller amounts.

Sweeteners can also be classified based on the time of origin. Saccharin, cyclamate and aspartame which were the earliest known sweeteners are referred as 'first generation sweeteners'. The newer sweeteners such as acesulfame-K, sucralose, alitame and neotame are categorized as second generation sweeteners.

The sweeteners approved by the Food and Drug Administration (FDA) of the United States are aspartame, acesulfame-K, saccharin, sucralose and neotame only. Also, Stevia, a natural sweetener made from extracts of a plant, has been approved for limited use.

#### Stevioside

tevia is a calorie-free, non-cariogenic, natural sweetener. Stevioside is an intensely sweet, naturally occurring compound found in the leaves of a small shrub.

Stevia rebaudiana Bertoni, also called yerba dulce. It is native to Paraguay and Brazil, but is now primarily grown in China and Japan. It is 250-300x



sweeter than sugar. The sweetness comes from compounds called glycosides. Stevioside is heat and pH stable, resistant to acid hydrolysis and non-fermentable that makes them advantageous over the non-caloric sweeteners and good for baking. In 1995, the FDA approved the import and use of stevia as a dietary supplement, but not as a sweetener. Stevia is found under these brand names- Only Sweet, PureVia, SweetLeaf, and Truvia.



#### Caloric Sweetener

Sugar

Sucrose, glucose, dextrose, fructose, lactose, maltose, galactose, isomaltulose, trehalose, tagatose, sucromalat

Natural Modified Sugars

Honey, cream syrup, palm or coconut sugar, sorghum syrup, high fructose corn syrup, caramel, inverted sugar

#### Non-Caloric Sweetener

Sugar Alcohols

Sorbitol, xylitol, mannitol, erythritol, malititol, lacitol, glycerol

Artificial

Saccharin, aspartame, sucralose, neotame, acesulfame K, cyclamate, neohesperidin dihydrochalcone, alitame, advantame sucralose

Natural

Stevioside, monk fruit, miraculin,

licorice, monellin

#### Siraitia grosvenorii (Monk Fruit)

onk fruit, or luo han guo, is a small herbaceous perennial vine of the gourd family, Cucurbitaceae, native to Southern China and northern Thailand and named after the monks who first cultivated it centuries ago. Though known since long, it has recently become popular for its potential health benefits and was approved in 2010 by the FDA as a sweetener. It has been used in China as a low-calorie sweetener for cooling drinks and in traditional Chinese medicines. It is 100-250x

sweeter than sugar and is believed to have antioxidant properties. The antioxidants, mogrosides in monk fruit provide the sweetness. These antioxidants have anti-inflammatory properties.

They are found in granular form and can be used as a direct replacement to sugar in baking and beverages.

#### Miraculin

iraculin is a natural sweetener obtained from a shrub that produces



berries having the property of causing sour substances to taste sweet. It is grown in West Africa and its active ingredient, miraculin is a glycoprotein with a molecular weight of about 44,000. It is

effective in sweetening citrus fruits, berries, yogurt etc. and found under the brand name Miralin miracle fruit drops.

#### Licorice

icorice is a natural sweetener derived from licorice root (glycyrrhiza glabra). It is 50x as sweet as sucrose. It is



used as an expectorant & in pharmaceutical vehicles. 'It reduces the solubility of enamel & prevents fall in pH during incubation of saliva-glucose mixtures'

solubility of enamel & prevents fall in pH during incubation of saliva-glucose mixtures'

#### Monellin

onellin is a fruit of the West African shrub known as serendipity berry (Dioscoreophyllum cumminsii) was discovered in 1969. The relative sweetness of



this sweet protein varies from 800 to 2000x compared to sucrose. Monellin has a slow onset of sweetness and has a lingering aftertaste. Its sweetness is pH-dependent and

heat over 50°C at low pH denatures the monellin proteins, causing a loss of the sweetness and making it unsuitable for processed food. Monellin can be useful for sweetening some foods and drinks, as it is a protein readily soluble in water due to its hydrophilic properties.

#### Saccharin



accharin was the first sweetener to be accidentally discovered and is the original non-nutritive sweetener. Saccharin is a manmade chemical that is 300x sweeter than sugar. This provides a potent sweetening flavor to anything it encounters, however many are not fond of the bitter flavor that accompanies it. Saccharin is not metabolized in the body and is excreted via urine. It is

known to cause reactions in people who have sulfa drug allergies. Sweet N' Low (the pink pack) and Necta Sweet are the common brands available in the market.



'It was originally classified as an "anticipated human carcinogen" by the FDA, however it was delisted due to lack of evidence'

#### Aspartame

A spartame is the most widely used noncariogenic sugar substitute commonly added to diet sodas, gums, yoghurt,

puddings, gelatin, snack foods and diet or "sugar free" foods.
Aspartame is 180x sweeter than sugar.
Aspartame is made up of three main components:





phenylalanine, methanol, and aspartic acid. Once it gets in the body, methanol can be either excreted through the urine or broken down to formaldehyde, a highly toxic substance. Aspartame is a possible neurotoxin and has been found to increase oxidative stress in the brain. It can disrupt certain neurotransmitters in the brain leading to behavioral disorders, anxiety, headaches, seizures, and insomnia in sensitivity people. Aspartame was the first sweetener to be approved by the FDA in 1981 and despite its known potential toxicity, it remains on FDA's "Generally Recognized as Safe" list, while some people maybe highly sensitive to it. The most common brand names are Equal (the blue pack) and Nutrasweet.

'Aspartame is detrimental to body's physiology and really should be avoided'

#### Acesulfame K

A cesulfame K (Ace-K) is a new artificial sweetener, approved in 1998 for use in soft drinks, candies, toothpaste, mouthwashes and pharmaceutical

preparations. It is 200x sweeter than sugar. Although not found individually marketed, it is

most commonly



found in "diet" drinks like Pepsi One or Coke Zero Sugar. Ace-K is excreted unchanged in the urine. It may stimulate insulin secretion and increase hypoglycemia which can be problematic for those with blood sugar imbalances.

#### Sucralose

ucralose or Splenda (yellow pack) is a non-nutritive, non caloric derivative of sucrose and made by replacing hydrogen in sugar with chlorine atoms. The molecular change to the sugar molecule means that only about 20-30% gets metabolized by the body. Sucralose is 600x sweeter than sugar. Splenda is



marketed as being safe for people who have



tea, coffee, carbonated & non- carbonated beverages, chewing gums etc.

#### **Sugar Alcohols**

Sugar alcohols, also known as polyols, are ingredients used as sweeteners and bulking agents. They are made by adding hydrogen to sugar and can be easily identified because they end in -ol, such as sorbitol, xylitol, lactitol and erythritol. They occur naturally in foods and come from plant products such as fruits and berries. Sugar alcohols are not commonly used in home food preparation, but are found in many processed foods. They are about half as sweet as sugar. Sugar alcohols are not calorie-free, but are lower in calories (about a half to one-third less calories) than pure sugar and have minimal impact on blood sugar. Like many other artificial sweeteners, they are not broken down in the body. This is because they are converted to glucose more slowly, require little or no insulin to be metabolized and do not cause



Sorbitol (D-glucitol) Maltitol

It is moderately sweet (about half that of sucrose) and relatively inexpensive. Candies and chewing

gums sweetened with sorbitol are available commercially. 'Sorbitol-sweetened gums reportedly have low cariogenicity when they were chewed three times a day'



Maltitol also termed reducing maltose, is disaccharide alcohol of glucose and sorbitol



obtained by the hydrogenation of maltose. The sweetness of maltitol is 75-80% that of sucrose and its quality of taste resembles that of sucrose.

#### **Xylitol**

The sugar corresponding to xylitol is xylose. It is a nonfermentable, pleasant tasting, non-cariogenic polyol. It has sweetness similar to that of



sucrose and has a cooling effect on the mouth. It is primarily used in chewing gum. 'Regular use of xylitol-containing chewing gum reduces the amount of dental plaque as well as increases the salivary flow'



Lactitol

Lactitol is disaccharide alcohol of galactose and sorbitol obtained by the dehydrogenation of lactose. It has a sweetness that is 30-40% of sucrose, and its

quality and taste resemble that of sucrose. It is not easily metabolized by acidogenic and polysaccharide forming oral microorganisms.

Though use of sugar substitutes is beneficial for various kinds of health-related issues, it should be taken only in moderation. Excessive intake may lead to health hazards like tooth problem, obesity, diabetes, hypertension, bloating, intestinal gas, diarrhoea and other cardiovascular diseases. Some of the artificial sweeteners in humans have shown to result in headache, dry mouth, dizziness, nausea, vomiting, diarrhoea and hepatotoxicity.

#### RELATIVE SWEETNESS OF ARTIFICIAL SWEETENERS TO SUGAR/SUCROSE

Stevioside 250-300 x sweetener Siraitia Grosvenorii 100-250 x sweetener Miraculin 100 million x sweetener Licorice 50 x sweetener Monellin 800-2000 x sweetener Saccharin 300 x sweetener 180-200 sweetener Aspartame 200 x sweetener Acesulfame K Sucralose 600 x sweetener



# ACTIVATED CHARCOAL

by Simran Agarwal\*

Activated charcoal has become an instant health trend after being presented as a miracle supplement and being featured in products like teeth whiteners, face masks,

and detox drinks. Moreover, it has quickly caught on as a food trend, although the powder does not add much to the flavour.
Current researches in food and health sciences have identified several health benefits associated with its consumption.

Activated charcoal, also known as activated carbon, is carbon material (like wood or coconut shells) that has been processed with steam, hot air or chemicals at extremely high temperatures to erode the internal surfaces of carbon material, thereby creating a microporous

structure and very large internal surface area of 900-2000 m²/g for binding to several substances on their surfaces. This process termed as 'adsorption' is responsible for the detoxification and healing properties of this product. The porous texture carries negative charge which binds to positively charged toxins and



Activated charcoal is not absorbed into the blood stream, so it can only bind to molecules directly in the gastrointestinal tract. It is significantly effective at adsorbing toxins within one hour after they are ingested. Several byproducts of food digestion such as gasses often induce gastrointestinal discomfort. Consumption of activated charcoal counteracts the above by binding to these end-products and assists in the reduction of bloating and abdominal cramps.

Activated charcoal has proved to be helpful in treating a variety of ailments including diarrhoea, kidney problems, hangovers and many more. It is even helpful in cases of drug overdoses and poisonings when administered



immediately. Applying activated charcoal to insect bites, rashes, poison ivy, bee stings, mosquito bites and snake bites can alleviate the pain as well as the stinging sensation.

It adsorbs many substances such as alkaloids, vitamin K antagonist, and acetaminophen. 50-100 grams of activated charcoal mixed with water or sweetened liquid can be used

effectively to treat overdoses of prescription drugs such as sedatives as well as over-the-counter medicines such as analgesics. It is also effective for drugs like aspirin, opium, cocaine, morphine and acetaminophen overdose. However, activated carbon has limited efficacy as an antidote in cases of heavy metal poisoning. Research published in the British Journal of Clinical Pharmacology indicates that single-dose activated charcoal can elicit substantial reductions in drug absorption in acutely poisoned patients. It is important that the proper amount is administered within an hour of ingestion.

In addition, activated charcoal can be used in cases of food poisoning when nausea and diarrhoea are present. Patients with trimethylaminuria (a genetic condition characterized by the fishy smell of urine, sweat, and breath) can benefit from the use of activated carbon. Researches conducted in the

Application of a combination of 1/2 teaspoon of activated charcoal with 1 tablespoon of coconut oil on the bee sting or mosquito/snake bite is advantageous

past have shown that accumulation of odorous trimethylamine can be reduced by adsorption with activated charcoal after systematic multiple dosing regimens.

Activated charcoal also finds its use in removing toxins present in low quality processed food as well as those obtained from environmental pollution that usurp ones energy and contribute to brain fog and digestive issues. Chronic exposure to toxins can cause cellular damage, allergic reactions, compromised immunity and rapid aging. Regular use of charcoal can remove unwanted toxins from our bodies thereby improving energy levels, cognitive functioning as well as immunity. Use of activated charcoal helps promote a healthy gastrointestinal tract by removing toxins that cause allergies, oxidative damage and poor system function. Removal of the allergens restore the natural homeostasis of metabolic, hormonal, and cardiovascular functions thereby aiding in alleviation of respiratory, cognitive, and digestive disorders.

Scientists have also found the use of activated charcoal to be helpful in reducing cholesterol levels across several clinical studies. It was

observed that bile acids and high-fat content from food were adsorbed on the surface of activated charcoal in the gut. This, in turn, reduced the absorption of fat from the gut. Moreover, low-density lipoprotein (LDL, "bad cholesterol") level was reduced, and high-density lipoprotein (HDL, "good cholesterol") level was increased.

Furthermore, through studies, activated charcoal has confirmed to help whiten teeth while promoting good oral health. It functions by changing the pH balance in the mouth, thereby helping to prevent cavities, bad breath and gum disease. It also works to whiten teeth by absorbing plaque and microscopic pieces of food that affect the colour of teeth. According to research conducted by a professor of dentistry at King's College London it was concluded that

DOSAGES

Adults : 50-100 gm initially followed

12.5 gm every hour

Children: 25-50 gm

(1-12 yrs)

Children: 25-50 gm

(Upto 1 yr)

1 tsp of charcoal powder dissolved in 1 cup of water along with rich fibrous diet and adequate intake of water will help in detoxification without any harmful side effects

charcoal toothpastes may be helpful in removing external (extrinsic) staining on teeth without negative abrasive effects.

Activated charcoal has proved to be beneficial in preventing cellular damage to major organs like kidney and liver, as well as supporting healthy adrenal gland by helping the body flush out the toxins and chemicals that cause internal damage. Studies have shown that it is able to remove organic and inorganic compounds from the body, and it tightly binds with metallic compounds. Toxic moulds that causes depression, kidney and liver failure, decreased

brain function, heart disease, eye irritation, headaches, vomiting, impaired immune system function and severe respiratory distress can also be removed using activated carbon. Charcoal has also proven to be an effective agent for removing 90 percent of mould in a tested solution.



The use of the product has proved to provide relief to an itchy or sore scalp. Blend of a tablespoon of activated charcoal with shampoo during wash is beneficial. This is due to the anti-fungal properties of charcoal that helps to control and remove any irritating bacteria on the scalp, providing soothing relief from any itchiness or discomfort.

Another important use is in preventing premature aging and in acne reduction. Activated charcoal has been implicated in acne reduction owing to its ability to trap and adsorb dust and microorganisms that can contribute to the problem stated. This property has been explored and utilized by the cosmetic industries.

Although activated charcoal fosters several health benefits owing to its property of adsorption, consumption of the same requires medical and dietary supervision. Excessive intake may lead to minor side effects including dehydration, constipation and black stools, or in serious, but rare cases, slowing or blockage of the intestinal tract, regurgitation into the lungs and dehydration. Excessive intake may also cause the charcoal to combine with vitamins, minerals, anti-oxidants as well as certain therapeutic drugs owing to the nonspecific nature of adsorption portrayed by it. It can also interfere with prescription medicine by decreasing the amount that the body absorbs, which can reduce the effectiveness of the medication. Potential adverse interactions with certain painkillers, antidepressants, arthritis drugs, diabetes medications, beta-blockers, antiarrhythmics, antihistamines and so forth have been reported.



# FASHION FROM FOOD WASTE

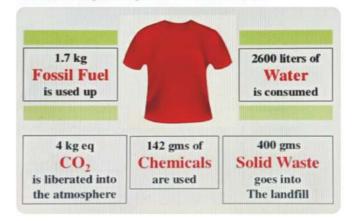
by Yashvi Makdani\*

aving our planet has been a major talking point not only in politics, but in our everyday lives as well. Our focus should be on reducing our carbon footprints and making the planet a cleaner place for future generations. For centuries, clothing industry has relied on the use of natural fibers like cotton, silk, wool and linen, and other materials such as leather and synthetics. With time, the overwhelming surge in garment manufacturing has placed an enormous strain on our planet's natural resources.

Natural fibers exert an adverse impact on the environment. Cotton in particular has been linked to soil erosion and water contamination due to pesticides. It is a water intensive form of cultivation and requires around 10,000 liters of water to

produce just one kilogram of cotton that is just enough to make a single t-shirt. On the other hand, synthetic fibers also have had a negative impact on the environment. Polyester is known to produce carcinogens, such as terephthalic acid and ethylene glycol in the process of its production and with every wash of the finished product hundreds of thousands of plastic microfibers enter the water supply.

#### Manufacturing a 250g Cotton T-Shirt means



#### seminar

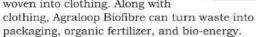
Food farming and further processing also generates huge amount of waste in the form unconsumed parts of plants like leaves, stalks, fruit peels etc. Food waste is simply food that was intended for consumption but is discarded along the food supply chain. Wastage may be generated during storage, processing, transportation and marketing. About 95% of the food we throw away ends up in landfills. Most of the material is a waste; it is either burnt or left to rot, and has a detrimental effect on the environment. Even as our food resources grow scarce, food wastage continues to be a rising global problem.

The earth's natural resources are under immense pressure, and the fashion industry is an enormous contributor to that cause. With resources becoming even scarcer, the industry will face rising costs vis-àvis labor to materials and energy costs. Nowadays, a number of companies are opting for a circular economy, recycling agricultural waste, the discarded byproducts from the cultivation of orange, banana, sugarcane, and other crops. Many companies are striving to optimize these business practices which on one hand solve wastage caused by food consumption and on the other hand turn it into natural, resourceful fibers for the fashion industry. A number of natural fiber products are manufactured from the food-crop waste.

#### AGROLOOP

The Agraloop™ Bio-Refinery, a new technology developed by materials science company Circular Systems S.P.C. (Social Purpose Corporation), Los Angeles, transforms food crop waste into high-value natural fiber products in a cost competitive and scalable way, providing sustainable and regenerative benefits. The Agraloop™ is capable of turning food

waste such as banana peels, pineapple leaves and hemp stalks and a range of feed stocks including oil-seed hemp, oil-seed flax, and rice straw as well as pineapple leaves, banana tree trunks and sugar cane bark into natural fiber that can be woven into clothing. Along with



Agraloop

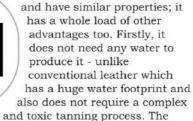
BIOFIBRE

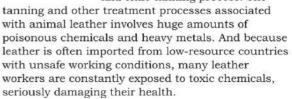
The waste materials mentioned, plus sugarcane and flax stalk, alone could generate up to 250 million tons of fiber each year if processed through the Agraloop, meeting the global demand for fiber two and a half times over. In 2018, the cutting-edge corporation Circular Systems won the H&M Foundation's Global Change Award for their Agraloop Biofibre technology. The farmers are also encouraged to acquire their own Agraloop systems, so that they can earn extra income from creating natural, sustainable fiber from materials which would otherwise be left to rot, producing alarming amounts of methane when set on fire creating further air pollution.

#### VEGEA

Vegea textile project was born in 2016 for the production of bio-based technical textiles by an Italian company as an alternative to leather. The vegetal raw materials and by-product of the wine industry (grape marc) consisting of grape skins, pips and stalks that are left over after crushing the grapes during wine production. The name VEGEA comes from the combination of VEG (Vegan) and GEA (Mother Earth). It was chosen to identify next generation of alternative materials to totally oil-based and animal-derived ones.

Vegea's 'wine leather' does not only just feel like conventional leather





The negative impact is absent in case of Vegea. Vegea is produced in several versions which differ by technical and aesthetic properties such as thickness, elasticity, weight, finishing, texture, backing textile and bio-based content. Its main fields of application are in fashion & design, automotive & transportation and packaging.

#### PARBLEX

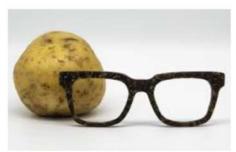
Chip[s] Board makes a range of materials from potato waste suitable for interiors and fashion markets. The company's second material, a bioplastic called Parblex, is steadily gaining momentum in the fashion industry for fastenings and is being prototyped as buttons and eyeglass frames. Parblex has a beautiful textured finish and is available in three colors: smoke, tortoiseshell and

Chip[s] Board has a zero-waste production system where even the off-cuts from material production are reincorporated back into the process. Looking to become a material innovation company rather than the producer of a single material, Chip[s] Board is looking for several other options such as bamboo, spent grain, coffee grounds and hemp to create materials with unique and beneficial properties.

#### ORANGE FIBER

Orange Fiber, the first patented material obtained as a citrus juice by-product transforms industrial waste into a sustainable and biodegradable textile. The silk-like cellulose yarns can be blended with other materials. When used in its purest form, the citrus textile is characterized by a soft and silky texture, is lightweight, and can be opaque or shiny.

Orange Fiber not only contributes by reducing the cost and the environmental impact of citrus pulp disposal, but creates a high quality and sustainable textile. An Orange Fiber product when worn close to the skin nourishes it and the effects are guaranteed for twenty washes, for now. Three prototypes are obtained from the fray with citrus fruits yarn: a lace silk black and white, a duchesse; colour neutral between white and cream, to be used for the summer jackets or cocktail dresses, and a fabric like viscose, to be assembled with shirts and summer clothes for daily use.





#### PIÑATEX

Piñatex, is a natural, non-biodegradable leather alternative made from cellulose fibres extracted from pineapple leaves, PLA (polylactic acid) and petroleum-based resin. It is created by felting the long fibres from pineapple leaves together to create a non-woven substrate.

The pineapple industry globally produces 40,000 tonnes of waste pineapple leaves each year, which are usually left to rot or are burned. Approximately 480 leaves (the waste from 16 pineapple plants) are needed to create 1 square meter of material. Pinatex is thus produced without the use of toxic chemicals and heavy metals as is done in the processing of animal leather. It is produced in a range of colours and finishes, including a textured surface and a



metallic finish. Piñatex is breathable and flexible. It has been described as having a softer, more pliable, 'leather-like' texture compared to other synthetic leathers. It can also be cut, stitched, embossed and embroidered and been used in the manufacture of bags, shoes, wallets, watch bands, and seat covers. Bourgeois Boheme, a vegan footwear label, uses Piñatex in their sandals.



#### AIRMEMIM

Sportswear is often made using synthetic fabrics because of their ability to wick moisture, but these fabrics often present a severe odour problem.

AIRMEM™, the latest S.Café® innovation, is based on a membrane containing 25% of coffee oil extracted from spent coffee grounds, the membrane is aimed to replace petroleum-based materials with a more sustainable alternative.



#### HOYAN-IP-BIO-TRIMMINGS

Bio-trimmings, a British jewellery brand with a sustainable vision to transform food waste into unique, desirable and eco-friendly trimmings. The dried food from the trash waste (orange peels, lemon pits, apple pips etc) is cooked, blended and reformed into sustainable fashion products like bags, earrings, rings and even buttons and trimmings. The brand uses different techniques to bond the components together forming a durable structure.



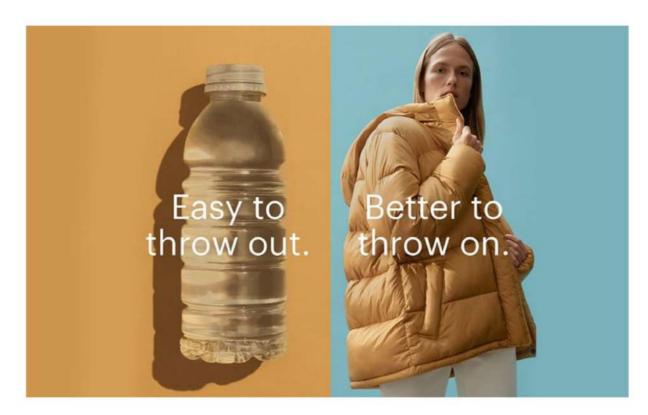
#### STING

Sting is not just the name of a fabric, it's the name of a LINK project through the Sustainable Technologies Initiative with funding from UK government department Defra (Department for Environment, Food and Rural Affairs). Sting plus is the result of several years' research and development in order to make a sustainable fabric from nettles. Camira have led a successful use of the common stinging nettle as the raw material fiber input for a new environmental textile for contract upholstery applications.

What's often thought of as a persistent weed with a painful sting is in fact an incredibly beautiful plant with a myriad of uses. Nettles have all kinds of medicinal and healing properties; they can be used in soaps and shampoo; they are used as flavorings in wine, tea, soup and beer; and their stems contain long, strong and soft fibers with high performance technical characteristics making them ideal for use in contract furnishing fabrics.



The fashion industry is one of the most globalized industries in terms of the flow of goods, services and people, but it is only over the past couple of years that the social and environmental impacts have been taken up seriously by decision-makers. Several companies are transforming food wastes, which would otherwise contribute to pollution or environmental degradation, into breakthrough sustainable fashion.



## POLYESTER RECYCLED

by Dhwani Rathod\*

early half of the world's clothing is made of polyester and Greenpeace forecasts this amount to nearly double by 2030. The athleisure trend is one of the main reasons behind it with an increasing number of consumers looking for stretchier and more resistant garments. The problem is, polyester is not a sustainable textile option, as it is made from polyethylene terephthalate (PET), the most common type of plastic in the world.

Polyester is a synthetic fibre that was patented in 1941 and the use of the material has grown ever since. It is made from petroleum, a non-renewable resource, such as ethylene glycol and dimethyl terephthalate. By 1968, synthetic fibres, such as polyester, surpassed the use of natural fibres including cotton and wool. With 49% of the global fiber production more than 63,000 million tonnes of polyester fiber are produced annually, polyester is the most widely used fiber in the apparel.

The production process is energy-intensive, and the dyeing in particular requires high temperatures. The processing of petrochemicals results in generation of large quantities of hazardous waste with emissions that can be irreversibly damaging to air, soil and water. In addition, the production involves huge quantities of water, chemicals and use of fossil fuels. The raw materials and by-products are toxic, pollute water and air and cause several health issues. Apart from the environmental factor, the non-biodegradable fabric has an artificial shine and feel. It does not breathe like cotton or other natural fibers, which makes the experience of wearing polyester hot and sweaty.



#### Step 1: Plastic PET containers are picked up at community recycling centers, then sorted by type and color.

Step 2: They are stripped of their labels and caps, washed and crushed, then chopped into flake.

Step 3: The flakes undergo a second melting and are made into consistently shaped pellets.

Step 4: The pellets are melted and extruded to make fibre. The fibre is crimped, cut, drawn and stretched, then baled.

Step 5: The baled fibre can be processed into fabric for a variety of textile product end uses.

As more people participate in the never ending cycle of fast-fashion, it causes real damage. For example, polyester shirts have "more than double the carbon footprint of a cotton shirt". It also decomposes at a much slower rate than organic fabrics. The green version of the polyester textile is the "Recycled Polyester".

Unlike polyester, recycled polyester uses PET in the form of plastic water bottles as the raw material. This kind of recycling prevents generation of landfills.

Recycled polyester is a relatively new trend in the eco fashion industry and is promoted by Textile Exchange (TE) as a preferred fiber. It can be either mechanically or chemically recycled, with feedstock consisting of either pre or post-consumer waste that can no longer be used for its intended purpose. This includes returns of materials from the distribution chain

The recycling is actually achieved either by a

mechanical or chemical processes. The mechanical process uses wastes from plastic bottles turned into polyester chips to form the fiber again by the traditional dry spinning process. Chemical recycling is taking a waste plastic product and returning it to its original monomers, which are indistinguishable from virgin polyester. Those can then go back into the regular polyester manufacturing system. Most rPET is obtained through mechanical recycling, as it is the cheapest of the two processes and requires no chemicals other than

Textile Recycling Types

MECHANICAL METHODS USE PHYSICS

CHEMICAL METHODS USE CHEMISTRY

Plant Based Animal Based Oil Based

Single Fiber Two Fiber Multi Fiber

Non-Wovens New Yarn

CHEMICAL METHODS USE CHEMISTRY

Plant Based CHEMISTRY

CHEMICAL METHODS USE CHEMISTRY

Plant Based CHEMISTRY

High Value Recycling

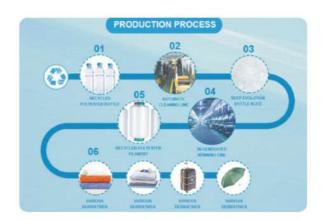
Plant Based Oil Based

New Yarn

the detergents needed to clean the input materials. However, through this process, the fibre can lose its strength and thus needs to be mixed with virgin fibre.

#### Manufacturing of recycled polyester yarn from bottle

Recycled polyester yarn manufacturing is very easy and economical. It begins with sorting and grading of plastic bottles, followed by chopping/grinding them into small pieces, which is finally melt spun. The molten polymer passes through a number of tiny holes of the spinneret, as it emerges out, it forms thin filaments. These filaments are used nowadays by both woven and knit industry.



Fabrics made from

recycled PET is

10times more

stronger than

fabric 5

normal polyester

#### Collection of plastic bottles

Most plastic bottles are thrown away after single use. This generates a lot of plastic waste. According to the report by World Economic Forum over 165 million tons of plastics content in the ocean comprises of 8.8 million tons of bottles alone every year. By following Bring Schemes and/ or Deposit refunds schemes plastics bottle could be collected.



#### Sorting (grading) of plastic bottles

Most of the plastic bottles are marked with number "1 to 8" inside of the three arrow triangle symbol of recycling symbol that is present on each bottle. Sometimes below the numbers you also find the abbreviations for the plastic type (PETE, HDPE, etc.). The most widely accepted plastics for recycling are number 1 and 2, also most of plastic containers are type 1 and 2. Below is a list of the numbers, full names of the plastics they refer to, and some examples of common containers made of that product.



Number 1 - PETE - Poly(ethylene terephthalate)
Soda bottles, water bottles, cooking oil bottles, and medicine containers.

Number 2 - HDPE - High-density Polyethylene Containers for: laundry/dish detergent, milk, shampoo, conditioner, also various toys, and grocery bags.

Number 3 - V - Poly(vinyl chloride)

Pipes, shower curtains, clear medical tubing, vinyl dashboards and seat covers.

Number 4 - LDPE - Low-density Polyethylene Wrapping films, grocery bags, and sandwich bags.

Number 5 - PP - Polypropylene

Tupperware, yogurt tubs, (orange) medicine containers, and plastic caps of soda bottles.

Number 6 - PS - Polystyrene

Plastic cups, disposable cutlery and cups (clear and colored), coffee cups, packing peanuts, Styrofoam insulation.

Number 7 - OTHER

They are made of any combination of 1-6 or another, less commonly used plastic.

Sorting is done both automatically and manually: in the former, automatic machines separate plastics from glass, metals, and paper. Here, clear PET and unpigmented HDPE milk bottles are also identified and separated. By using the Fourier-Transform Near-Infrared (FT-NIR) spectroscopy and optical color recognition camera systems, materials can be categorized and sorted out. Sorting performance can be maximized by using techniques including X-ray detection.

Crushing: After crushing post-consumer PET waste, it is converted into bales.

#### Flake Production & Washing

The sorted plastics are crushed, the material shredded into small fragments, separated and washed. It still contains dry by that contain residues of the original content, shredded paper labels, and plastic caps. In washing plants, flakes are washed and only 2-3m3 water per ton of material is required to clean the flakes.

A fabric made from recycled polyester requires 80% less energy and 90% less water than virgin polyester that made directly

from oil.

Drying: PET flakes are very sensitive to moisture and if not dried can result in adverse mechanical properties after melt extrusion. The molten flakes must have very low moisture level prior to extrusion. Different drying processes are available after removal of contaminations such as dehumidifying and infrared drying. After drying flakes are passed through electrostatic separator to separate metals from flakes.







#### Melt filtration and contaminant removal

After removal of contaminants, polymer is melted. A "screen changer" machine is used to separate contaminants mechanically from the melt. A large hole in the steel drill allows the flow of polymer melt smoothly. The melt can be further heated, reheated and re-melted if necessary.

#### Re-melting of flakes to convert yarn

PET bottle flakes are re-melted and passed through spinnerets, to be extruded as filaments. A cooling system automatically cools the filament. The length of the yarn depends on the requirements and is used to manufacturing fabric both in woven section and knit section. CVC, PC etc. yarn can also be mixed with cotton fiber for blended results. By adding color during melting, colored yarn is also produced.



#### **Pros of Recycled Polyester**

#### Managing landfill and oceans

Recycled polyester gives a second life to a material that is not biodegradable and that would otherwise end up in landfills or in the oceans. According to the NGOs Ocean Conservancy, 8 million metric tons of plastic enter the ocean every year, on top of the estimated 150 million metric tons that currently circulate in marine environments. Keeping this pace, by 2050 there will be more plastic in the ocean than fisher

#### rPET is as good as virgin polyester, but takes less resources to make

Recycled polyester is almost as the same as virgin polyester in terms of quality, but its production requires 59 percent less energy compared to virgin polyester. rPET's production reduce CO2 emissions by 32 percent in comparison to regular polyester. In addition, recycled polyester can contribute to reduce the extraction of non renewable crude oil and natural gas to make more plastic.





#### Cons of Recycled Polyester

#### Recycling has its own limitations

Many garments are not made from polyester alone, but rather from a blend of polyester and other fibers. In that case, it is more difficult, if not impossible, to recycle them. Even clothes that are 100 percent polyester cannot be recycled forever.

#### Limited Life

Plastics cannot be infinitely recycled; each time plastic is heated it degenerates, so the subsequent iteration of the polymer is degraded and is used to make lower quality products.

#### The process of recycling PET impacts the environment too

Another issue concerning the recycling process of polyester is that the chips generated by mechanical recycling can vary in colour: some turn out crispy white, while others are creamy yellow, making it difficult to achieve. Keeping consistency in colour some dyers use chlorine-based bleaches to whiten the base. Inconsistency in dye uptake makes it difficult to get good batch-to-batch colour consistency and this can lead to requirement of redyeing involving high use of which requires high water, energy and chemical.

Moreover, some studies suggest that PET bottles leach antimony, a substance known to be causing

cancer. Antimony oxide is typically used as a catalyst in the process of making PET bottles and polyester. Health agencies around the world say there is no reason for concern, as quantities are too small to be considered toxic (500 mg/kg PET). Even so, Textile Exchange names "finding substitutions for antimony" as one of "challenges" for rPET's

#### Recycled polyester releases microplastics

Last but not least, some counter argue the affirmation that rPET keeps plastic from reaching the ocean. It still does, as man-made fabrics can release microscopic plastic fibers. According to a recent study from Plymouth University, in the UK, each cycle of a washing machine can release more than 700,000 plastic fibers into the environment. It does not matter if garments are from virgin or recycled polyester; they both contribute to microplastics pollution.

#### Brands associated with recycling of polyester

#### Parley for the Oceans

It is an organization dedicated to addressing the threats against our oceans. In a well-known collaboration with Adidas, the thought leader and footwear giant created a line of Adidas Ultra Boost Parley shoes that fuse performance-oriented footwear and sustainable progressive materials and has since made inroads into apparel sector also. Each shoe repurposes approximately 11 plastic bottles intercepted before entering the ocean.

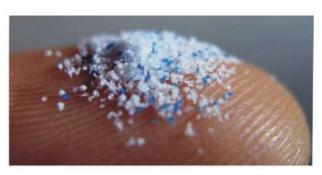
#### Patagonia

It has been making recycled polyester from plastic soda bottles since 1993, making it the first outdoor clothing manufacturer to turn trash into fleece, according to the company. Now, the company makes its recycled polyester fibers from a blend of used soda bottles, unusable manufacturing waste, and worn-out apparel. The recycled polyester can be found in a wide range of Patagonia's collection, ranging from t-shirts and winter weather gear.

#### Flyknit by Nike

It was developed in response to feedback from runners who wanted a shoe with snug fit like socks. After four years of collaboration amongst programmers, engineers, and designers, the company created the technology to make a knit with static properties for structure and durability. The result is a featherweight upper that does not lose its shape, but feels formfitting and seamless. The company says Flyknit shoes reduce the material waste of traditional cut and sew method by an

average of 60%, and each pair is made from the equivalent of six recycled plastic bottles.



#### Vivo barefoot

It is an industry leader for barefoot shoes, and their recently released PET collection turns approximately 17 throwaway plastic bottles into a new pair of shoes. The PET offerings provides minimalist sports shoes, trail shoes, 'ultimate' land and sea boots, and street wear like suede chukka boots. All styles prioritize wearability, durability, and a design meant to mimic the foot's natural anatomy and enable more sensory feedback, and each folds up to the size of a rolled pair of socks.

Undoubtedly, the benefits of recycled polyester, helps to move the needle in the design of sustainable clothing. Recycled polyester not only contributes to the reduction



of petroleum extraction, but it also consumes lesser energy than the regular method, and allows for a much longer life-cycle of the garment. Since the recycling process can be repeated instead of disposing of unwanted garments, it diminishes the environmental impact that comes with garment











## SHAHTOOSH A SHAWL TO DIE FOR

by Anmol Chanani\*

hahtoosh meaning 'king of wool' in Persian, is a type of soft, fine wool collected from the underfur of Tibetan antelope, chiru (Pantholops hodgsonii). The possession of a shahtoosh shawl is a sign of social and economic status because of its rarity and beauty. The shawls

are very expensive and have been in great demand as a luxury product in high-end fashion markets world-wide. Before the ban, a plain shahtoosh would range from Rs.15,000 to Rs.40,000 depending on the quality of wool used. The intricately embroidered shahtoosh shawl could even go up to eight to ten lakhs of rupees.

Shahtoosh is the world's finest wool (7 - 10 microns) having the lowest micron count, followed by vicuña. These shawls were originally very few and could only be woven by highly skilled master Kashmiri artisans. The origin of shahtoosh long was shrouded in rumour. One common myth was that it came from the down of a "Siberian goose." Another was that the

Tibetan antelope naturally shed its wool, and those hair clumps were then collected. The gravest threat posed to Tibetan antelopes is large-scale illegal hunting for meat and fleece.

Shahtoosh shawls are so fine that a large shawl can pass through a wedding ring, and hence the name "ring shawls". The quality of Shahtoosh is determined by the quantum of Toosh or Tibetan Antelope down in the fabric. The measurement system used is Dani (in Kashmiri), where 1 Dani equal to 1/16 of the fibre composition. The typical types of Toosh are:

- · Shurah Dani or 16 Dani: 100% Toosh Shawl,
- Bah Dani or 12 Dani: Mixture of 75% Toosh and 25% Pashmina
- Aeth Dani or 8 Dani: Mixture of 50% Toosh and 50% Pashmina with the warp of Toosh and the weft of Pashmina.

A major source of raw material for shahtoosh, the Tibetan antelope is a rare species that exclusively inhabits the Qinghai- Tibet Plateau. Three to five individual skins are required to make a single shahtoosh shawl, as each animal produces only 100-120 g of down hair. The demand has hence led to a dramatic decline in the population of Tibetan antelopes and processing or weaving of shahtoosh is a punishable offence in many countries. Chiru has been classified as Grade-I animal and listed as an endangered species under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and the import of any part or product of Pantholops is prohibited by U.S. law. Trade for shahtoosh and other Tibetan antelope products have been fully prohibited since 1979. However, the weaving of Shahtoosh shawls continues

in secrecy in Kashmir due to high demand by western buyers and antelope killing and snuggling remain rampant at the Indo-China borders.

Shawls sold for \$ 500 in India can fetch 30 times more in US & Europe 5

Shahtoosh is smuggled into Kashmir from Tibet and woven into shawls and scarves. While the source of Shahtoosh is Tibet,

but manufacturing (spinning and weaving) exclusively takes place in Kashmir valley. Many shahtoosh weavers live in the Edgar district of Srinagar, Kashmir. They make the shahtoosh shawls



at home or in small workshops using handlooms. It takes a weaver about one month to a year to weave a single shawl. It takes an artisan a year to make a shawl which fetches a price of around \$27,000 in the market, while the artisan earns only about \$540.

### Characteristic features of Shahtoosh and Pashmina

Identification of Shahtoosh requires a high level of skill. It is easy to get confused between Shahtoosh and Pashmina since they look very similar. The distinctive characteristics of the hair of Tibetan antelope are the continuous lattice medulla that completely fills the diameter of the shaft and the rounded shape of the medullar cell allows its easy identification. Fiber length ranges from 30 to 34 mm. The fiber has widely spaced scales and a simple coronal type pattern. The distance between the scales of Shahtoosh fibers is greater than distance between the scales of Pashmina goat underfur.

Unlike the wide array of dyes for coloured Pashmina shawls, Shahtoosh is left a natural beige-grey-brown. The absence of colour is compensated by incomparable lightness and softness finer than hair, and so it can only be delicately hand-loomed.

A distinct but a very fine diamond weave pattern is visible in Shahtoosh only under a magnifying glass whereas the diamond weave pattern in Pashmina is much larger in scale. Shahtoosh has a short self-fringe, on the other hand Pashmina has a longer fringe, either tassel fringe, twisted fringe or single knot fringe. Shahtoosh is





softer, thinner and less dense as compared to other shawls made of pashmina, mohair, angora and lamb's wool.

Shahtoosh







### Poaching of Chiru and Smuggling of Shahtoosh

According to some estimates 20,000 Chirus are shot and skinned by poachers every year for their soft hair. Biologists believe that it was during this latter period of the twentieth century that the trouble began, and the slaughtering acquired a commercial dimension. Meat was an item for barter and Chiru wool became a prized item for export to India. Conservationist estimates that if Chiru's continue to be poached they will be extinct in five to ten years.

Poachers use machine guns and semi-automatic weapons to hunt Chirus year round, not just when their coats are the thickest. The poachers like to attack the females during the breeding season when they are pregnant and gather in large numbers. Poacher sells the pelts for between \$60 and \$85 a piece to middlemen who in turn sell them for

considerably higher prices to other middlemen who finally smuggle the airy fibers from China to India.

The Shahtoosh trade still remains unidentified and

according to the WTI (Wildlife Trust of India) survey, Lhasa and Shigatse in Tibet are believed to be the main hub of bulk transactions. The wool is collected from points on the 1,000 km stretch between Gar and Amdo and brought to Shigatse. Shahtoosh also comes from Qinghai and Xinjiang via the highway connecting Tibet to Qinghai. Though Shahtoosh is still carried over remote passes by Tibetan nomads using yaks as a means of transport, modern-minded traders using more ingenious methods have increasingly moved in.

Among the anti-poaching forces, Wild Yak Patrol is the most famous who arrested 66 poachers, confiscated 1,658 Tibetan antelope pelts, 545 skulls, 18 vehicles and over 12,000 rounds of ammunition in 1999 in Qinghai region in Tibet. Although there have been successes in anti-poaching efforts, enforcement officials feel that they have only been able to stop a fraction of the actual slaughter.





### Laws and Treaties relating to Tibetan Antelope

### **International Treaty**

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) came into force on 1 July, 1975. The Tibetan antelope (Pantholops hodgsonii) was included in Appendix I in 1979, whereby international trade in derivatives of this species is prohibited. International Union for Conservation of Nature (IUCN) classifies Tibetan antelope as Endangered (ENA2d) in its Red Data Book, which implies that the species is Endangered and though not critically endangered, it is facing a very high risk of extinction in the wild in the near future.

### **Domestic Laws in different Countries**

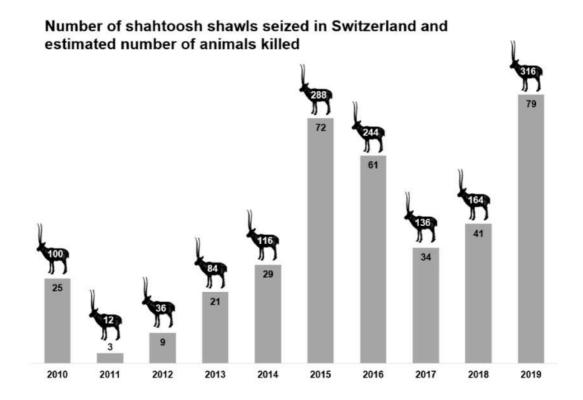
China: Listed as Class I protected Animal in the Wild Animal Protection Law of 1989.

India: Listed in Schedule I of the Wildlife (Protection) Act of 1972, which extends to all of India except Jammu & Kashmir. Hunting and trade in derivatives is a punishable offense. Originally listed in Part I of Schedule II (special game) in Jammu & Kashmir Wildlife (Protection) Act of 1978. A "regulated" trade was permissible, and since no "regulation" had taken place, the High Court of Jammu & Kashmir held on 1 May, 2000 that the Shahtoosh trade was in violation of the State law, CITES and India's Export-Import Policy. Upgraded to Schedule I of the State Act in May 2002 banning hunting and trade. The import and export of all species of wild fauna and derivatives is prohibited (except for specimens which carry CITES certification) under the Export-Import Policy of India for the period 2002-2007. India fulfills its obligations under CITES by this notification under the Foreign Trade (Development and Regulation) Act of 1992. Penalties for violation are dealt under the Customs Act of 1962.

Nepal: Listed in Schedule I as an endangered species in the Nepal National Parks and Wildlife Conservation Act.

European Union: Placed under Annexure A of the Commission Regulation (EC) No. 338/97, which forms the legal basis for the implementation of CITES in the European Union. Annexure A provides the highest level of protection for endangered species equivalent to CITES Appendix I.

United Kingdom: Control of Trade in Endangered Species (Enforcement) Regulations (COTES) 1997 which provide for a large fine and a maximum two-year prison sentence for anyone found illegally trading shahtoosh. This regulation is currently being revised to strengthen enforcement powers and allow a prison sentence of up to five years.



Fashion conscience by Madeeha Syed



Is their blood on your shawl?





## FLOATING VILLAS

by Alfi Fida\*

rifting away from the world in a secret lair unhooked from reality, lounging in a glass bedroom on the waves with jellyfish for sleeping companions and seahorses playing peekaboo in the coral reef in your backyard... It is no secret that most people consider waterfront properties a prime location to live, work, and relax. But, there is even a greater luxury that few people have yet to experience by actually living on water itself.

Floating villas are the flavour of the day, designed to be tethered and untethered at will, promoting ecologically sound living while indulging in the most incredible of all fantasies. They are talking about homes that take one into the ethereal zone of aquatic living. Due to the rising sea level, increasing frequency of destroying floods and increasing population, the floating villas are an innovative idea for coastlines and river districts in times of global change.

Traditional floating houses, normally houseboats, were built in various countries in the places prone to floods, near coast lines and on the lakes and rivers. Floating houses/houseboats are available in Canada, Sydney, Netherlands, Germany, Hong Kong, Laos, New Zealand, Serbia, UK, USA, Thailand and India.



76 JDBI TIMES 2019-2020

There are two types of floating houses, one which permanently floats and other that floats on flood waters and gets placed on ground, after the wet spell.

Providing services like water supply, electricity and toilets in a floating house is a challenge. Green building concepts have to be followed with use of non-conventional resources for energy, use of waste products, and recycling of water. Net zero energy buildings are more useful as they do not require additional energy from external source and their







total energy demand is met from an onsite generation power. Normally solar panels are provided for the energy requirements. Due to aesthetic requirements as well, energy efficiency, roof garden is also becoming popular. Other measures like incinolet toilets (incinerates all human waste immediately), geothermal pond loops into the floor, and filtration units for drinking water collected from rainstorms are other features.

### THE FLOATING SEAHORSE

Located off the coast of Dubai, The Floating Seahorse comes straight from the stables of the Kleindienst Group. Spanning over 4,000 square feet across three levels, the structure is designed like

unpowered boats and has three levels: two underwater rooms including a submerged master bedroom and bathroom designed to offer views of the surrounding marine life - a main sea level with an open-plan living area, a kitchen, dining area and deck with a mini bar and an upper level that has an informal bed.









The \$2.8 million Dubai's Floating Seahorse is the product of more than 5,000 hours of research and 13,000 hours of design and engineering. With an outdoor pool, a coral garden and a glass- bottomed Jacuzzi on the roof, the villa can accommodate up to 20 people.

### ADMARES

This bunch certainly looks freshly minted from the latest sci-fi flick. X Line and M Line floating villas from ADMARES- a 'marine construction expert' dedicated solely to the construction of an alternative floating accommodation, ranging from villas and hotels to entire islands are now becoming popular.

ADMARES's Luxury Floating Villas are supposedly equipped with the latest green intelligence for power generation, sewage treatment and water production, and able to operate independently in areas where city infrastructure is not available. Therefore, as an added bonus, one can languorously travel in these villas to remote destinations.

The X-LINE and M-LINE Villas range in size from 4,300 sq ft (small) to 65,000 sq ft (mega abodes). Both selections are equipped with latest green concepts and look like something straight out of a modern art installation with clean lines and futuristic silhouettes.

### SEASCAPE

The next floating abodes are the SeaScape villas from BMT Asia Pacific. This Hong Kong-based consultancy has created floating home concepts, which likens it to a 'stationary yacht'. Designed to create novel experiences for holidaymakers and targeted primarily at the hospitality sector, separate guest units are available for swanky, ecoconscious resorts. These are triangular modules with expansive 40-foot decks which open to the sea and sky on all fronts. The chief attraction of the Seascape is the 13-foot diameter acrylic column, which is part of the main bedroom. Sinking three meters into the deep, it provides unrestricted 360-degree sea viewspretty much like 'The Floating Seahorse'. It has an interior that can be reconfigured to attach multiple villas together as one structure spanning upto 3,000 sq ft, taking advantage of the modularity of its three-sided shape.



The villa itself is perched on a marine-grade aluminum pontoon with a curved fiberglass roof. In addition, these homes are "classed" and follow standards set by organizations ensuring safety of marine structures and impervious to stormy weather.

The SeaScape is actually the successor of the SeaSuite designed earlier by BMT, which consists of egg-shaped floating villas and beach cabins. The Sea-Suite debuted in 2014 with three models - Floating Lodge, Houseboat, and Beach Cabin. Each uses the egg-shaped mould as the basis for their transportable, adaptable and nautically minded lodging designs.



### THE OCEAN FLOWER

A pioneering development that takes its name from a typical Maldivian flower is the Ocean Flower. The Ocean Flower forms part of "The 5 Lagoons" and is being developed by Dutch Docklands International in a joint venture with the government of the Maldives. The master-planned resort is located in North Male Atoll, a 20-minute boat ride from the capital of Male.

The Ocean Flower offers an array of amenities such as a pristine beaches, restaurants, shops, a diving centre, a spa, swimming pools and small private islands where one can relax or enjoy. The spacious oceanfront villas are fully furnished, have spacious terraces, a private plunge pool and are just a short boat ride away from the international airport.

### ARKUP YACHT

The Arkup Yatcht is the idea of French engineers Derouin and Arnaud Luguet, both of whom live in Miami, which is considered as one of the areas considered most vulnerable to flooding due to the rising sea levels. The Arkup livable yachts is a "house yacht" or a "floating villa that combines the best attributes of yachts, floating houses and waterfront villas, with the added benefits of being self-sufficient, sustainable and environmentally friendly.

The floating villa costing \$5.5 million has 4,300-square-foot of living space, divided between 4 bedrooms, 1 living room, an open-area kitchen, 4.5



bathrooms, a swimming platform and a retractable deck. Furnished in a minimalist, sleek and elegant style, it blends ultimate luxury with practicality, for what is poised to be an efficient means of relocating at sea.

The roof is covered with 2,400 square feet of solar panels, which make it entirely independent in terms of electricity. The Arkup comes with a rainwater collection and purification system, as well as a 4,000 gallon tank for storing fresh water. With a maximum speed of 7 knots and a range of 20 nautical miles, the Arkup was never meant as a viable alternative to a yacht, but a compromise between that and an actual home, mixing the best of both worlds. Arkup has a zero emission set-up and generates its own electricity, through two 100 kW / 272 hp electrical engines, and has a water purification system.

In recent years, floating structures have again grown in popularity, particularly in the face of extreme weather conditions. The obvious advantage is that they can be relocated easily and moved vertically with fluctuations in



water levels caused by tides, heavy rainfall or other flooding. The floating houses are found to be stable from an engineering point of view and are economically viable, if constructed from locally available materials. But beyond the pragmatic reasons, floating homes are also appealing to prospective residents, because they afford an intimate proximity to water, and have a feeling of openness, with light and views that are more akin to a boat than a house. This upcoming technology will be in practice in many parts of the world, when the existing land surface is taken away by the rising water level.



A Futuristic Concept...



## SHELTER HOMES DISASTER RELIEF

by Prishita Agarwal\*

Relief shelters play a vital role to combat natural disaster, and are an important part of disaster response and recovery. Such shelters are commonly roofed, secure, hygienic, and liveable locations for people to utilize during periods of disaster, until they are able to move back to their permanent dwellings.

Disaster relief (DR) shelters are used to provide private and secure places to live for people who have lost their usual accommodations as a result of some disaster. It not only provides immediate and shortterm shelter to the disaster victims but also helps them to recover from the trauma providing a base for rehabilitation.

Many DR shelters are designed and planned so that

they can be erected, dismantled, and stored for future use. These kinds of shelters are lightweight structures and are made of plastic sheets. They include tents, prefabricated housing, and public community buildings such as leisure centres, university halls of residence, places of worship, sports venues, and private rentals.

Shelters can be divided into four categories: emergency shelters, temporary shelters, temporary housing, and permanent housing. However, the International Federation of the Red Cross and Red Crescent Societies (2013) has added additional categories to these, such as transitional shelters, progressive shelters, and core shelters/one-room shelters.

### seminar

### **Emergency Shelters**

Shelters used for brief periods to deliver life-saving support during an emergency. This kind of shelter commonly does not allow for extensive preparation of food or prolonged medical services.

### **Temporary Shelters**

Shelters meant for short-term use as a public mass shelter following a disaster. The duration of stay in such shelters may be limited, and therefore, prioritizing speed and limiting costs is taken into account when constructing this kind of shelter. They are generally in the form of tents.



Emergency Shelter

### Temporary Housing

Shelters often distributed for long-term periods ranging between six months to three years. Temporary housing such as rental houses and prefabricated units allow people affected by a disaster to return to their normal daily activities.

### Transitional Shelters

Shelters usually developed by displaced individuals themselves following a disaster. Transitional shelters are commonly relocated from a temporary site to a permanent location, upgraded into part of a permanent house, resold to generate income to aid with recovery, recycled for reconstruction, and reused for other purposes. Such transitional shelters are expected to serve for many months or years.



Temporary Shelter



Temporary Housing



Transitional Shelter

### Permanent Housing

Permanent housing may be upgraded from a transitional shelter, a progressive shelter, a core shelter, or even a new house. Such houses should be resistant and resilient to future hazards and disasters.



### **Progressive Shelters**

This type of shelter is designed and built to be more permanent and upgradeable in the future through alterable structural components.

### Core Shelters/One-Room Shelters

This type of shelter is designed and built with the intent of being permanent in the future, including a foundation and all or some of the key services, such as plumbing and various utilities. The goal with this type of shelter is to build at least one or two rooms to meet permanent housing standards and facilitate improvement. However, these shelters are not intended to be a full permanent house.

### **Disaster Relief Architecture**

Disaster relief architecture can come in many shapes and sizes. Construction of such homes mainly deals with prefabrication. These structures either built on the desired spot or are made beforehand into a complete structure and then installed on the place of temporary residence.

The interiors of these structures are made keeping in mind the various needs of specially-abled people, young kids and old people. Since many are in a state of shock and trauma due to the disaster, light and nude colours are used for the large walls to bring psychological healing and give a sense of inviting energy into the space. Low voltage recessed lighting and multipurpose furniture pieces that occupy less space are used.

Over the years, relief architecture has seen many changes due to technological advancements and innovations. Some of the examples listed here are the most impressive disaster relief solutions around, being used in the real world.

### TENTATIVE

Tentative, by DesignNobis, is a compact solution of disaster relief housing. The concept is meant to be very light and ultra portable. As many as 24 units can be transported to disaster sites on a single truck. The outer shell is made of fiber glass and is meant to be weather resistant. The roof is also designed to collect water.



### RE:BUILD

Designed by Pilosio Building Peace, RE:BUILD is a clever solution to disaster relief housing. The modular system uses construction scaffolding. The scaffold is meant to combine easily with local materials such as dirt, rocks or sand. It can be used to build housing, schools and other types of buildings that are needed in the aftermath of a disaster.



### ABLENOOK

AbleNook was designed by Jason Ross and Sean Verdecia, graduate students at the University of South Florida. It is another modular example of disaster relief architecture. The structure is multipurpose and can be used as housing, school classrooms, storage or anything else a community may need. The lightweight framework also allows for mass production and easy transportation.



### IKEA SOLAR POWERED FLAT PACK

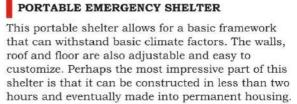
IKEA Flat Pack was originally built in collaboration with UNCHR, is another lightweight solution for emergency shelter. As its name suggests, the Flat Pack folds down completely flat and is solar powered. It has been used for disaster relief and in refugee camps around the world.





Jordanian/Canadian designer by the name of Abeer Seikaly designed this concept for relief shelter inspired by temporary huts from various tribes around the world. The weave pattern ties directly to the structure of the shelter, allowing it to open and close depending on the climate and area of use. The openings created by the weave pattern also allows for ventilation and easy construction.

The collapsible structural fabric shelter can adapt to various climates, while also providing the comforts of contemporary life such as heat, running water, and electricity.



These shelters are manufactured using lightweight materials for quick assembly and separation processes. that are durable, cost-effective, easy to build and weather resistant.



WEAVED HOME



### CONCRETE CANVAS

Concrete Canvas may not be the best looking structure, but is an important product due to its durability, innovative construction technique, speed of construction and safety features. After being delivered as a shell, one only needs air and water to get the shelter up and running - and in only one hour. The shelter also comes with steel doors and is fire resistant.

### EXO

After Hurricane Katrina, Michael McDaniel was inspired to create EXO - a low cost, portable disaster relief solution for those displaced from their homes. This bulletproof housing, EXO comes almost completely assembled and can be transported easily in bulk due to its stackable design.



### RAPID DEPLOYMENT MODULE(RDM)

Another quick setup, this Rapid Deployment module can be built without a single tool. A Massachusetts based company Visible Good designed this shelter to be deployed in about 25 minutes by only two people. Transport is also quick, and almost no waste is produced because the shipping crate is actually used as the base for the RDM.

### Hush2

The Hush 2, designed by Extremis Technology, is impressive for a number of reasons. Most notably, it is designed to withstand hurricane force winds due to its unique set of hinges on its outer walls. When a hurricane warning is issued, residents of the shelter can unhinge the walls and reconstruct the building into a prism - a shape that is much stronger than a box and will deflect hurricane force winds.



### JUST A MINUTE

After several earthquakes in Nepal in recent years, Italian firm Barberio Colella ARC has designed a concept for Nepalese refugees. This larger structure can house up to 10 people and is easily constructed on site. With roof-based solar panels and a rainwater collection system, this shelter is a great solution.

### GRID

The Grid, by Carter Williamson Architects, is a prototype for larger, lightweight sustainable housing that can be easily transported to remote areas. The initial structure acts as a base or template that can be built on the debris. It is said to house 8-10 people.





### RECIPROBOO

ReciproBoo was designed in response to disaster relief efforts in Nepal after a 2008 flood. Originally, simple tents were used as relief structures but they got badly damaged and were degraded after only a few months. Now, ReciproBoo using bamboo are used by locals.

### ONAGAWA CONTAINER TEMPORARY HOUSING

After a horrible earthquake hit Onagawa, Japan in 2011, Shigeru Ban designed and built these temporary structures out of paper and shipping containers. The airy design and fast relief helped to revitalize the community and lift the spirits of those affected by the disaster.



### POST-TSUNAMI KIRINDA PROJECT

Another inspiring disaster relief project from the mind of Shigeru Ban, these houses were built from bricked earth and locally-sourced rubber tree wood. 100 of these small houses were built after a tsunami hit Sri Lanka in 2004.

### HEXAGONAL SHELTERS

Designed by Architects for Society, these unique hexagonal shelters can fit together to form community areas and larger structures. The structures are meant to be used for short-term relief, but can also transition into long-term housing or up to 20 years.

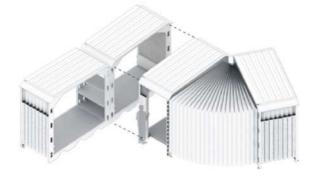


### RD-SHELTER PROTOTYPE

Sussie, the Scottish design firm behind this prototype, is currently raising funds in order to deploy their idea to the real world. The concept can house up to four people (two adults and two children), is waterproof, windproof and comes with storage in its base with a locking system from inside.

### SURI MODULAR HOUSING

Although this shelter was originally designed for post-earthquake situations, it is now being used to house refugees from the Middle-East and Africa fleeing political and economic hardship. The modular design can grow to create private and communal spaces by attaching multiple units.





### GARRISON POST-DISASTER HOUSING

Garrison architects have built a full-size prototype of this vertical relief architecture solution. It is meant to be a blueprint for post-relief buildings and offers flexible design.

### MAT-TER TYPHOON RESISTANT HOUSING

After a devastating earthquake hit the Philippines, a competition was held to redesign and rebuild schools in the area. MAT-TER designed this bamboo structure to be typhoon resistant. They also plan to plant a small bamboo forest around the school to be used as a wind screen and a resource to make repairs if needed.



### FLOATING SCHOOL

Architect Mohammed Rezwan designed these floating schools to combat floods during the monsoon season in Bangladesh. Roughly one third of the country goes under water during the monsoon season.

### ENERGY BOX

This earthquake-proof house in Northern Italy is built of cross-laminated timber and uses special construction methods to create a strong structural framework.



### EARTHQUAKE RESISTANT STRUCTURE

These Pakistani homes are built with local wood. They utilize a special wood framing pattern to fight the vibrations from earthquakes and lightweight roofing to keep damage to a minimum.

### EARTHQUAKE PROOF GEODESIC DOMES

Earthquakes can devastate communities in Israel, so builders there are taking a new, sustainable approach to home building. These domes are made of hay and mud and may be the best relief architecture solution yet.



There are several government aided as well as non-governmental organisations trying to work on new ways to combat the repercussions of natural calamities all together and provide with basic needs to the people in need. A range of shelter types are available and it is best for disaster management authorities to understand which type of shelter is most appropriate for a group of survivors' needs and conditions. DR shelters must be able to deal with environmental, economic, technical, and socio-cultural issues in order to improve the living quality and needs of displaced people.



### **Types of Child Victims**

### Displaced Children

Refugee children: Due to conflict, violence, and natural disasters, children and their families flee their country and seek refuge in neighbouring countries. They therefore possess specific rights.

Children displaced internally: As a result of some conflicts, children move around in their own country to escape fighting.

Unaccompanied children: Children who have been separated from their families due to conflict. They are alone but not necessarily orphans.

# CHILDREN IN ARMED CONFLICT

by Abiha Islam\*

A tan age when each experience will have a long lasting influence either for the best or for the worst, many children are dragged into chaos, destruction and death. When many sleep nestled safely in a cocoon of peace and love, war is the reality, for many others. With the increase in number and intensity of armed conflicts international wars, civil wars, and conflicts between other kinds of groups, such as ethnic conflicts and violence associated with narcotics, trafficking and gang violence around the world, the modern international society is suddenly being forced to address a new development where children no more than ten years are being forced to the frontline of battlefields.

War is arguably the most catastrophic event known to humankind, entailing particularly grave consequences for children in terms of survival, development and well-being. Children are no longer passive victims of conflicts between armed groups; in fact, they are being increasingly recruited by such groups for ancillary and more active combat roles. Child soldiers are used or forced into sexual services, as combatants, messenger, porters and cooks.

A child soldier is a boy or girl under the age of eighteen, who is compulsorily, forcibly or voluntarily recruited or used in hostilities by armed forces, paramilitaries, civil defence units or other armed groups



### Child Victims of Armed Forces

During and after conflict, and through no fault of their own, children are exposed to bombings, fighting, deprivation, etc. They are part of the civilian casualties.

### Children in Armed Conflict

This includes children under the age of 18 years, who are recruited by force or by abduction or have enlisted to escape poverty, abuse or discrimination. They are used as fighters, messengers, porters, cooks and for sexual services.

The United Nations has pointed out six grave violations against children during armed conflict-Recruitment and use of children; killing or maiming of children; sexual violence against children; attacks against schools or hospitals; abduction of children; denial of humanitarian access

With the increase in the use of children as soldiers in armed conflict around the world, it becomes important to study the underlying causes, and find solutions to effective methods to prevent further destruction of human life and rehabilitate the affected children.

### CAUSES

Many times, families are scattered and the social support system fails that children are left with no other option but to join the different armed groups. In such an environment, they sometimes consider it legitimate to use weapons and violence. Neglected adolescence, breakdown of the social and familial structures within a community, and the displacement of children from their homes are some of the major reasons why children voluntarily enlist into the armed services. Poverty is another important factor contributing to the involvement of children in armed conflicts. An armed conflict further accentuates an already declining economic system, thereby worsening the condition of many sections of society. Lack of opportunities and future prospects coupled with the need to voice their opinions and gain some sort of protection and attain dignity in life, are the major incentives for these children to join the conflict. Displacement of families during armed conflicts also contributes to the enlistment of children as soldiers. In the last decade an estimated twenty million children have fled their homes due to armed conflicts.

### EFFECTS

The use of children in armed conflicts, for any reason is violative of international norms and laws. When children are engaged as soldiers, spending their formative years immersed in systems of violence and constructing their values and identities under the guidance of these armed groups, they can become vehicles of violence rather than citizens who can build stable peace. The effects of armed conflict on children are both direct and indirect.

Direct Effects take the form of physical injury, developmental delay, disability, mental and behavioural health sequelae, and death. Military actions, violence associated with drug trafficking, indiscriminate airstrikes, and other forms of armed conflict have the intended and unintended consequence of killing and maining children.

Indirect effects relate to the destruction of infrastructure required by children for their optimal survival and development and other downstream effects on health, due to worsened living conditions.

- In several instances they are beaten and tortured in case they try to escape, quashing any hope of freedom.
- In other cases to propel them into war and break their psychological barriers. Girl child soldiers are either subjected to trafficking or prostitution.
- These children lose out on schooling years thereby bringing to a standstill all economic and societal development. Also, as a result of years of psychological abuse, many children remain aggressive for years, thereby disturbing the stability of society.
- They may become vulnerable to acute and chronic malnutrition, with subsequent effects on their growth, immune and metabolic systems functioning, and cognitive development.

The effects of war on child soldiers are immense and need to be specifically addressed to facilitate their effective integration into society. From the moment they are recruited, they are made to witness or commit heinous crimes, sometimes of their own family and friends so that they will not hesitate during combat. Though there were no specific laws





relating to children in armed conflicts until the mid1990-s, many international conventions dealt with
the issue of child soldiers. However, now a blanket
ban has been imposed. Over the years, child rights
have been given great importance in international
humanitarian law. However, child soldiers only came
into the focus of international society only two
decades ago, before which the existence of such a
phenomenon was conveniently ignored or remained
out of the focus of international society. Groups like
Amnesty International and the UN are working to
end the use of child soldiers in wars. The UN is
campaigning to tighten up laws on allowing guns
from reaching battlefields where child soldiers are
now involved.

REMEDIES

There are number of projects now being set up across the world to help former child soldiers. They reach out to the children through education and counselling thereby encouraging them to return to civilian life. Their aim is to ensure that each child gets a childhood that is safe and carefree. It is important that the communities and governments jointly work towards the integration of these children into society and give them the necessary care and protection that will facilitate their return to the normal pace of life.

In order to rehabilitate these children their lost childhood, International Institutions should lobby for effective mechanisms including severe international Children do not start wars; however they suffer from its deadly aftermath. They are exposed to violence and brutality either by force or without any coercion. Whatever the reason, wars leave a long trail of destruction in their lives

pressure and sanctions on those countries that do not effectively establish and enforce national legislations for the rehabilitation of child soldiers and persecute their recruiters. Consistent support of national Governments and their cooperation with international organizations will go a long way in effectively rooting out this process. Until such cooperation and commitment can be achieved, every day more children will die in the battlefields of Congo and another will take up arms in the mountains of Afghanistan.



## **DELUSIONAL** DISORDER

by Sreyasi Dutta\*

Mr. Raman (name changed) is at home for days being unable to go to office, market place or anywhere outside his home as he believes that he is being followed by someone whenever he is out on the streets. When taken to a doctor he is diagnosed with a delusional disorder.

elusion, in psychology means a rigid system of beliefs with which a person is preoccupied and to which the person firmly holds onto despite the logical absurdity of the belief and a lack of supporting evidence.

Although the exact causes of the disorder are still being examined, however many researchers have attributed the causes to genetic, biological, environmental and psychological factors.

Delusions are also a part of other psychological disorders like Schizophrenia, with which it is often confused. However, in Schizophrenia, there is the presence of Hallucinations (false perceptions in the absence of external stimuli, such as things seen or heard that are not real or present), and other factors which are absent in Delusional Disorders.

There are various forms in which delusions may manifest themselves:

Delusional Disorders
were earlier known as
Paranoid Disorder and
as the name sug-gests,
is characterized by
unshakable beliefs in
something untrue by
the affected indi-vidual

tophobia



### Grandiose type

In this, a person has an over-inflated sense of power, worth, knowledge, or identity and may believe he or she has a great talent or has made an important discovery.

### Erotomaniac type

Someone with this disorder believes that another person, often someone important or famous, is in love with him or her. The person might attempt to contact the object of the delusion, and stalking behaviour is not uncommon.

### Jealous type

In this type of Delusional disorder, a person believes that the spouse/sexual partner is unfaithful.

### Somatic type

The person feels he/she has some physical defect, disorder, or disease (such as AIDS).

### Persecutory type

The individual may be highly suspicious of his relatives/associates and complain of being watched, followed, poisoned, or influenced by electronic devices rigged up by his/her enemies. It is common for these people to make repeated complaints to legal authorities

### Mixed

An individual exhibits delusion that are characterized by more than one of the above types, but no one theme dominates.

### Unspecified

An individual's delusions do not fall into the described categories or cannot be clearly determined.

A research by Rudden (1983) found that women have more frequent erotic and heterosexual delusions, more affective symptoms, and more interpersonal precipitants than men who have more delusions with a homosexual theme. Perhaps because of these differences in delusional content and affective symptoms, delusional women are more difficult to diagnose than are delusional men.

People with delusional disorder typically function well apart from their delusion(s) and do not exhibit obviously odd or bizarre behaviour. Anger and violent behaviour may be present if someone is experiencing persecutory, jealous, or erotomaniac delusions. In general, people with delusional disorder are not able to accept that their delusions are irrational or inaccurate.

Any disorder, especially when it reaches its extremities requires intervention and treatment. Individuals suffering from Delusional Disorders face a lot of social issues and stereotypes like those of



'witchcraft' and being labelled as 'mad.' It becomes imperative for the individuals to seek treatment.

Given the chronic nature of this condition, treatment strategies should be tailored to the indi-vidual needs of the patient and focus on maintaining social function and improving quality of life. Establishing a therapeutic alliance as well as establishing treatment goals that are accept-able to the patient should be prioritized. Avoiding direct confrontation of the delusional symptoms enhances the possibility of treatment compliance and response. Hospitalization should be considered if the potential for self-harm or violence exists. Antipsychotic

medications may be used in the treatment of delusional disorder, although research on the efficacy of this form of treatment has been inconclusive. For most patients with delusional disorder, some form of supportive therapy is helpful. The goals of supportive therapy include facilitating treatment adherence and providing education about the illness and its treatment. Educational and social interventions can include social-skills training (such as not discussing delusional beliefs in social settings) and minimizing risk factors, including sensory impairment, isolation, stress, and precipitants of violence. Providing realistic guidance and assistance in dealing with problems stemming from the delusional disorder may be very helpful.

Cognitive therapeutic approaches may be useful for some patients. In this form of therapy, the therapist uses interactive questioning and behavioural experiments to help the patient to identify problematic beliefs and then to replace them with alternative, more adaptive thinking. Discussion of the unrealistic nature of delusional beliefs should be done gently and only after rapport with the patient has been established.

In addition to encouraging an individual with delusional disorder to seek help, family, friends, and peer groups can provide support and encouragement. It is important that goals be attainable, since a patient who feels pressured or repeatedly criticized by others will likely experience stress, which can lead to a worsening of symptoms. A positive approach may be helpful and perhaps more effective in the long run than criticism.

Moderate physical exercise can also be encouraged. Where appropriate, patients can be referred to community mental health teams. This is important as caring for patients with dementia requires modification of communication, diagnostic and, at times, management approaches.



### SOME WELL KNOWN PERSONALITIES, WHO SUFFERED DUE TO DELUSIONAL DISORDERS



Dr. John Nash, the famous Nobel Prize winning mathematician once suffered from a form of schizophrenia in which he experienced delusions of persecution. He at one time believed that aliens were trying to contact him through newspaper (delusions of reference). The movie, A

Beautiful Mind portrays his life story and remarkable recovery from schizophrenia.



Parveen Babi, a yesteryear actress, suffered from acute depression and paranoid schizophrenia. This type of schizophrenia is characterized by delusions, hallucinations and suicidal thoughts. Narratives by people close to her described her as dressing up in film cos-tumes, with

a knife in hand constantly screaming, "They are coming to get us!". She passed away in 2005.



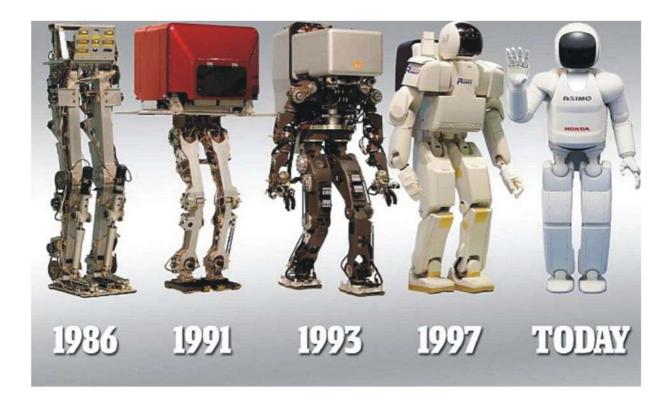
Vincent Van Gogh, the famous painter is believed to have been suffering from schizophrenia. He lived in a time when schizophrenia had not yet been identified as a disorder, but medical professionals today believe he was a victim of it. He suffered from unstable

moods and a very eccentric personality that led 150 doctors to hypothesize a posthumous diagnosis. Van Gogh had recurring psychotic episodes in the last two years of his life, and at age 37, he committed suicide.



Tom Harrell, composer and musician was diagnosed with schizophrenia in his 20's. He suffers from paranoid schizophrenia and some symptoms which he exhibits, during his shows are standing away from the microphone, head bowed

low, upon being called, he moves very slowly and only raises his head to play the trumpet. He has recorded on over 260 albums and continues to compose, record and tour around the world, all while battling Schizophrenia.



# DEVELOPMENTAL ROBOTICS

by Puja Choudhury\*

Instead of trying to produce a programme to simulate the adult mind, why not rather try to produce one which simulates the child's? If this were then subjected to an appropriate course of education one would obtain the adult brain.

- Alan Turing

uman Development is one of the most fascinating phenomena in nature. Babies are born as helpless individuals, with simple motor and cognitive skills not even sufficient to allow them to survive and fend for themselves without the support of their parents and caregivers. However, within a few years, they reach a sophisticated level of mental development.

Developmental Psychology is the discipline that aims at understanding the child's autonomous mental

development, through field and laboratory experiments and comparative psychological studies. These empirical investigations lead to the definition of theories and hypotheses and to the identification of general developmental principles underlying the acquisition of mental capabilities. Such a growing set of empirical data and theoretical knowledge on human development, in addition to benefiting human sciences such as psychology, philosophy, and cognitive science, can have tremendous technological implications including implementing the principles in cognitive architecture of robots.

Developmental Robotics, also known as epigenetic robotics or ontogenetic robotics is a highly interdisciplinary subfield of robotics in which ideas from artificial intelligence, developmental psychology, neuroscience, and dynamical systems theory play a pivotal role in motivating the research. The main goal of developmental robotics is to model the development of increasingly complex cognitive processes in natural and artificial systems and to understand how such processes emerge through physical and social interaction. Robots are typically employed as testing platforms for theoretical models of the emergence and development of action and cognition - the rationale being that if a model is instantiated in a system embedded in the real world, a great deal can be learned about its strengths and potential flaws. Unlike evolutionary robotics which operates on phylogenetic time scales and populations of many individuals, developmental robotics

capitalizes on "short" (ontogenetic) time scales and single individuals (or small groups of individuals).

There are at least two distinct driving forces behind the growth of the alliance between developmental psychology and robotics:

- Engineers are seeking novel methodologies oriented towards the advancement of robotics, better that is and more autonomous, adaptable and sociable robotic systems. In that sense, studies on cognitive development is used as a valuable source of inspiration.
- Robots can be employed as research tools for the investigation of embodied models of development. Neuroscientists, developmental psychologists, and also engineers, may gain considerable insight from trying to embed a particular model into robots. This approach is also known as synthetic neural modeling, or synthetic methodology.

Developmental robotics differs from cognitive robotics because it focuses on the processes that allow the formation of cognitive capabilities rather than these capabilities themselves. More generally, developmental robotics is uniquely characterized by the following three features:

 It targets task-independent architectures and learning mechanisms.

- It emphasizes open-ended development and lifelong learning.
- The complexity of acquired knowledge and skills shall increase progressively.

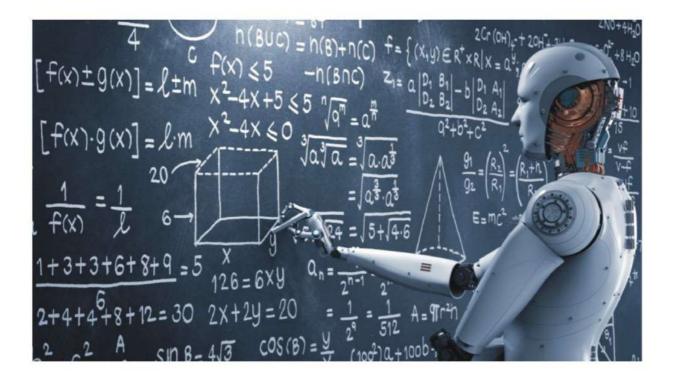
### ASPECTS & AREAS OF INTEREST

Developmental robotics differs from traditional robotics and artificial intelligence in at least two crucial aspects.

First, there is a strong emphasis on body structure and environment as causal elements in the emergence of organized behavior and cognition requiring their explicit inclusion in models of emergence and development of cognition.

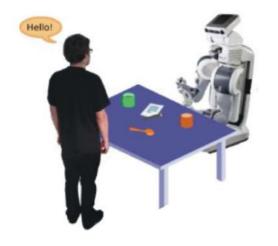
Second, the idea is to realize artificial cognitive systems not by simply programming them (e.g. to solve a specific task), but rather by initiating and maintaining a developmental process during which the systems interact with their physical environments (i.e. through their bodies, tools, or other artifacts), as well as with their social environments (i.e. with people, other robots, or simulated agents).

The spectrum of developmental robotics research can be roughly segmented into four primary areas of interest.



### Socially Oriented Interactions

This category comprises research on robots that communicate or learn particular skills via social interaction with humans or with other robots. Examples include research on imitation learning, communication and language acquisition, attention sharing, turn-taking behavior, and social regulation



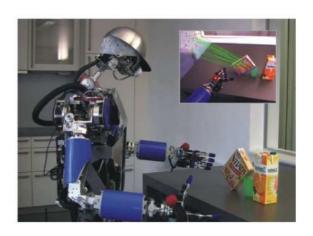


### Agent-Centered Sensori-motor Control

This involves investigation of bodily capabilities, changes in morphology & their effects on motor skill acquisition and self-supervised learning schemes not specifically linked to a functional goal. Examples include self-exploration, categorization of motor patterns, motor babbling, learning to swing or bounce and learning to walk or crawl. Action and perception are tightly intertwined, and that the refinement of this coupling is the outcome of a gradual developmental process.

### Non-Social Interactions

It is characterized by a direct and strong coupling between sensor and motor processes and the local environment (e.g. inanimate objects), but do not involve any interaction with other robots or humans. Examples are visually-guided grasping and manipulation, tool-use, perceptual categorization, and navigation.





### Mechanisms and Principles

This category embraces research on mechanisms or processes thought to increase the adaptivity of a behaving system. Many examples exist: developmental and neural plasticity, mirror neurons, motivation, freezing and freeing of degrees of freedom, and synergies; research into the characterization of complexity and emergence, as well as the effects of adaptation and growth; practical work on body construction or development.

Of late there has been a lot of discussion on the possible futuristic wars between humans and robots and on robots taking over the world and enslaving humans. Various movies have efficiently propagated the idea. But the truth is different; robots are not our competitors on this planet. They are our successors.

### SOME REMARKABLE EXITING ROBOTS



### MANAV

India's first humanoid robot which was developed in the laboratory of A-SET Training and Research Institute by Diwakar Vaish.

It is equipped with onboard sound processing and visual processing ability. It also has the capability of binocular vision processing which gives it the ability to perceive depth and perspective.



### ASIMO

A humanoid robot created by Honda in 2000. Since then it has been continually developed and has become one of the world's most advanced social robots with an ability to recognize moving objects, postures, gestures, understand its environment, and interact with humans. ASIMO is currently the most physically capable social robot with the ability to walk, run and even use the stairs.



### PARO

Paro is a therapeutic baby seal robot, intended to be cute in order to have a calming effect on patients in hospitals and nursing homes. It works in a similar

way to animal-assisted therapy and has been found to calm people, especially with diseases such as dementia. It can even actively seek out eye contact, respond to touch and cuddle with people.

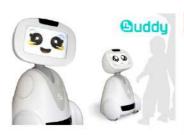


### SOPHIA

Developed by Hong Kong based company Hanson Robotics, became a Saudi Arabian citizen, the first robot to receive citizenship of any country. Sophia's eyes combined with computer algorithms allow her to see; she can follow

faces, sustain eye contact, and recognize individuals, is able to process speech and have conversations using a natural language subsystem.

Its software has been programmed to give pre-written responses to specific questions or phrases which create the illusion that the robot is able to understand conversation.



### BUDDY

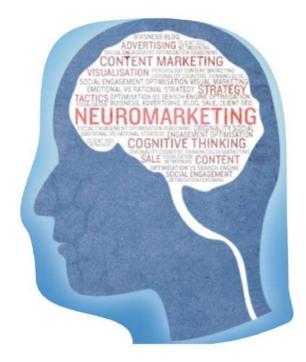
Developed by Blue Frog Robotics, is designed as an emotional companion robot to be used at home. Buddy connects, interacts and even protects

people at home. Buddy is designed to be a human's personal assistant to look after the watch over home while someone is away and even entertain children with games and other interactivities.

The further success of developmental robotics will depend on the extent to which theorists and experimentalists are able to identify universal principles spanning the multiple levels at which developmental systems operate. The scope of developmental robotics is not limited to humanoid robots, but robot that enhances the development of organisms be it in the field of medicine, technology, simple leisure etc. Developmental robotics has reached the end of its infancy. Therefore, in the next

ten to fifteen years the world will see child robots that can go completely from crawling to walking, speak in two- and three-word sentences, engage in pretend play and deceive others through their own theory of mind, which is the beginning of a sense of gender development and a sense of morality.





### **NEUROMARKETING**

by Ayushi Poddar\*

euromarketing is a commercial marketing communication genre that applies psychology and consumer behaviour to marketing research. It is a useful tool for marketing research towards understanding of the target groups (consumer). It can clearly provide valuable insight on how the consumer feels and thinks thereby helping a company plan and shape its marketing strategies. It involves the study of the consumers' sensorimotor, cognitive mind and affective response to marketing stimuli. It is a technique that uses neuroscience tools and knowledge to study, explain, and forecast customer's behavior. The ultimate goal of the technique is to plunge into the customer's subconscious mind to help marketers better understand how their clients think and react so that they can manipulate forcing their clients to make a purchase.

The potential benefits derived by marketers from their study include more efficient and effective marketing campaigns, practices and strategies with fewer product offerings and campaign failures, with an aim to ultimately manipulate the real needs and wants of people to suit their marketing interests.

Researchers investigate and learn how consumers respond and feel when presented with products

Research has shown that structural differences between the male and female brain has strong influence in their respective decision as consumers.

and/or related stimuli. Market researchers use this information to determine if products or advertisements stimulate responses in the brain linked with positive emotions. Neuromarketing thus provides theorization of emotional aspects of consumer behaviour

Neuromarketing can also be used with Big Data to understand the impact of modern-day advertising channels such as social networking, search behaviour and website engagement. Many agencies help organizations use this kind of neuroscience findings for effective marketing and develop better communication with consumers.

Neuromarketing uses the latest advances in brain scanning to learn more about the mental processes behind customer purchasing decisions. It typically relies on Magnetic Resonance Imaging (MRI), Magnetoencephalography (MEG), electroencephalography (EEG), Facial Coding, Eye-Tracking, Biometrics, and other technologies that help measure the subconscious reaction to such marketing elements such as advertising, packaging

Marketers use segmentation and positioning to divide the market and choose the segments they would use to position themselves to strategically target their ad.

'Research has shown that structural differences between the male and female brain has strong influence on their respective decisions as consumers'

Young people represent a high share of buyers of the electronics market and fashion industry. Due to lesser maturity, adolescents are subject to strong emotional reactions, although they can have difficulty identifying the emotional expression of others. Marketers can use this neural information to target adolescents with shorter, attention-grabbing messages (using various media, like sound or moving

images), and ones that can easily influence their emotional expressions. Teenagers rely on more 'gut feeling' and do not fully think through consequences, which are mainly consumers of products based on excitement and impulse. Due to this behavioural quality, marketers need to advertise content with an emotional, quick response approach.

### Influence of Neuromarketing on Marketing

Neuromarketing is taking the world by storm and has been utilized by almost every MNC to influence their customers. Big brands like Google, HP, Microsoft, Frito-Lay, Hyundai, CBS and ESPN are investing heavily in it and are getting much better results in terms of positive consumer behaviour, consumer loyalty and brand image building.

The top most four brands that got benefits from Neuromarketing include Pepsico, E Bay, Daimler and The Weather Channel etc. These companies relied upon this concept and used it for extensive market research, running focus groups and decision making campaigns for building marketing strategies. Brands such as Campbell's and Frito-Lay have used neuroimaging to reimagine their packaging. These companies have used this concept for brand building process and have got competitive advantage through differentiation strategy in packaging.

### Influence on Consumer Buying Behaviour

Consumers are mostly unable to phrase their desires and needs when asked explicitly. The brain encloses internal information, which could elucidate true desires and needs. If this knowledge was to be available, the buying behaviour of people could be influenced.

Chips Ahoy conducted a study on its packaging and realized that it had a problem related to the colours





used and the image was neutral and boring. To solve this, they organized a study that included eye tracking techniques to identify how consumers reacted to different designs. Based on the results, they implemented several key changes to their packaging: Cookies are now sold in a tube that can be resealed, text and colours have improved, and the cookie's image is more fun and engaging.

### Influence on Advertising

If advertisers had the power to determine which images could cause which response in the medial prefrontal cortex of the consumer, it could increase its sales through modification of their ads to derive maximum benefits from the consumer.

Brands such as Campbell's and Frito-Lay have used neuroimaging techniques to reimagine their packaging. Customers were shown packaging and their responses recorded as positive, negative or neutral. In addition, they were interviewed extensively in relation to colour, text and imagery. This research revealed that customers had a negative response to shiny packaging, but didn't show a negative response to packaging in a matte form. Frito-Lay then went on to scrap the shiny packaging, and moved on with the new, matte look.





### Influence on Pricing

In order to set prices of products appropriately, it is helpful to know the willingness of the target consumers to pay the price.

Marketers can analyse the presented prices that would represent the maximum willingness of consumers to pay vis- a- vis the brain activities (activation of the part of the brain connected to pain or happiness).

Pay Pal focused upon different payment methods to generate different emotions. They conducted a study to see how the payment methods available on a website influence the trust of potential buyers, a fundamental issue for brands with ecommerce. They compared two main payment methods: PayPal and Credit Cards. All 30 participants made simple online purchases and their responses were measured by MRI. Analysis of the results showed that electronic payments perceived as unsafe, activated brain areas connected with negative emotions, while payments perceived as safe, activated the areas related to the prediction of rewards. The study found that consumers perceived PayPal as a safer, more rewarding and more effective payment method and in contrast found credit payment dangerous as identified by the activation of the brain area associated with negative emotions.



### Influence on Branding

Customers are more likely to act loyal to their preferred brand. Loyalty of consumers to their preferred brands is connected with intense emotions. A study showed that only the most favourite brand could generate emotions that can influence the decision-making process. There is a compelling difference in brain activity between common brands and preferred brands. By making use of MRI, EEG or MEG techniques, it is possible for marketers to figure out which brain areas are being activated when products from certain brands are being presented, and how far these brands can influence the decision-making process of the consumers.

Coca-Cola is one of the best examples of positive sensory marketing that has shown tremendous branding results.



### Influence on Decision-Making

This decision-making is a marketing tool that can be analysed by the neuromarketing technique, MRI.

Pepsi Co used Neuromarketing technique to understand women's behaviour and their decision making towards Baked Lays Product. Their biometric responses helped the company to create the idea for single-serve packaging corresponding to the ad campaign.

Website design, content, and their visuals also create difference in consumer's decision making. For example, Facebook has a simple website with less data and so consumer friendly. It is this reason that it is accepted by all the age group of consumers.

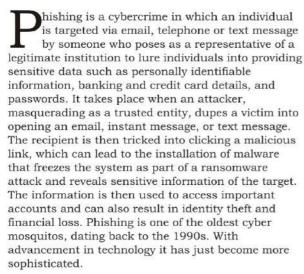


By making use of neuromarketing techniques, marketers can analyse the effects of consumer buying behaviour, advertising, pricing, distribution of products and decision making on a much more scientific basis.



## PHISHING DIGITAL WEAPON FOR FRAUD

by Parijat Gautam\*



Phishing is often used to gain a foothold in corporate or governmental networks as part of a larger attack, such as an advanced persistent threat (APT) event. In this latter scenario, employees are compromised in order to bypass security perimeters, distribute



malware inside a closed environment, or gain privileged access to secured data. Phishing emails can be sent to millions of potential victims to try to trick them into logging in to fake versions of very popular websites.

The phisher tries to get the victim do one of the two things:

Hand over sensitive information: These messages aim to trick the user into revealing important data often a username and password that the attacker can use to breach a system or account. The classic version of this scam involves sending out an email tailored to look like a message from a major bank.

Download malware: These types of phishing emails aim to get the victim to infect their own computer with the forced malware. Often the messages are "soft targeted" - they might be sent to an HR staffer with an attachment that purports to be a job seeker's resume. The other technique focuses on attacking the login information, or infects the computer for which the phishers are awarded a huge amount. The basic three techniques used in this roof is Spear Phishing, Whaling and Deceptive phishing.

### Spear phishing

When attackers try to craft a message to appeal to a specific individual, it is called spear phishing. In this, Phishers identify their targets (sometimes using information on sites like LinkedIn) and use spoofed addresses to send emails. Spear phishing targets a specific person or organization, often with content that is custom made for the victim or victims. It requires pre-attack reconnaissance to uncover names, job titles, email addresses. The hackers surf the Internet to match up this information with other researched knowledge about the target's colleagues, along with the names and professional relationships with key employees in their organizations. With this, the phisher crafts a credible email. Spear phishing is a censorious threat to businesses. According to a 2016 report of a survey on the subject, spear phishing was responsible for 38% of cyberattacks on participating enterprises during 2015.





### Whale phishing

Whale phishing, as the name suggests, is a type of phishing aimed at the very big fish - CEOs or other high-value targets. These phishers have an authority within a company, but since they are not full-time employees, they often use personal email addresses for business-related correspondence, which doesn't have the protections offered by corporate email.

Gathering enough information to trick a really highvalue target might take time, but it can have a surprisingly high payoff. The attacker sends emails on issues of critical business importance, masquerading as an individual or organization with legitimate authority. For example, an attacker may send an email to a CEO requesting payment, pretending to be a client of the company.

### Deceptive phishing

Deceptive phishing is the most common type of phishing scam. In this stratagem, fraudsters impersonate a legitimate company in an attempt to steal people's personal data or login credentials. Those emails frequently use threats and generate a sense of urgency to scare users and force them into doing what the attackers want. As an example, PayPal scammers could send out an attack email that instructs recipients to click on a link in order to rectify a discrepancy related to accounts. The link redirects to a fake PayPal login page that collects a victim's login credentials and sends them to the attacker. The success of a deceptive phish hinges on how closely the attack email resembles a piece of official correspondence from the abused company.



Therefore users must always examine their URLs carefully to see if they can redirect to an unknown or suspicious website. They should also look out for generic salutations, grammatical mistakes and spelling errors present throughout the email.



A very worthy example of Phishing is the 419/Nigerian scam. A voluble phishing email from someone claiming to be a Nigerian prince is one of the Internet's most famous running scams. According to Wendy Zamora, Head of Content at Malwarebytes Labs, "The Nigerian prince phish comes from a person claiming to be a government official or member of a royal family who needs help transferring millions of dollars out of Nigeria. The email is marked as 'urgent' or 'private,' and its sender asks the recipient to provide a bank account number for safekeeping the funds. "Incidentally, the number "419" is associated with this scam. It refers to the section of the Nigerian Criminal Code dealing with fraud, the charges, and penalties for offenders.

In 2008, cyber criminals targeted corporate CEOs with emails that claimed to have FBI subpoenas attached. In fact, they downloaded key loggers onto the executives' computers, snagging almost 2,000 victims.

Phishing cannot be solved overnight. It is a critical situation in which phishers always try to come up with newer strategies to manipulate the consumers. Online consumers should embrace regular risk scrutiny for detecting the recent techniques that may head to the attack. User must be aware about the dangers of advanced malware safekeeping teams. They need to adopt advanced methodologies that can put the threats to an end.

There are some measures that can be taken in order to prevent phishing.

- One can easily fall prey to the new phishing techniques due to lack of knowledge and information. It is about the new techniques of phishing so updating oneself is recommended.
- Clicking 'OK' on certain links that pop up on ones notification panel is not cool always. One must read the terms and conditions first and then click 'OK'. In case of any doubt opting for some other website is recommended.
- The browsers must also be updated from time to time.
- Personal information like name, address, phone no, pan card no, etc, should not be shared without any checking. One must go to the site asking for the details and check if they are genuine or not. If there is any doubt, one must try calling up their customer care in order to get any doubts cleared.

These are just precautions which can be taken by one in order to prevent phishing. One needs to remember that there is no single fool proof way that can prevent phishing attacks.







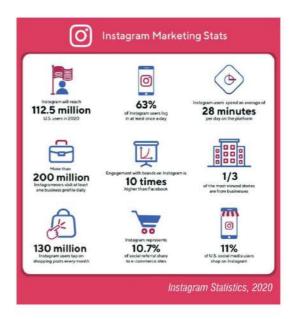
## WORLD OF INSTAGRAM...

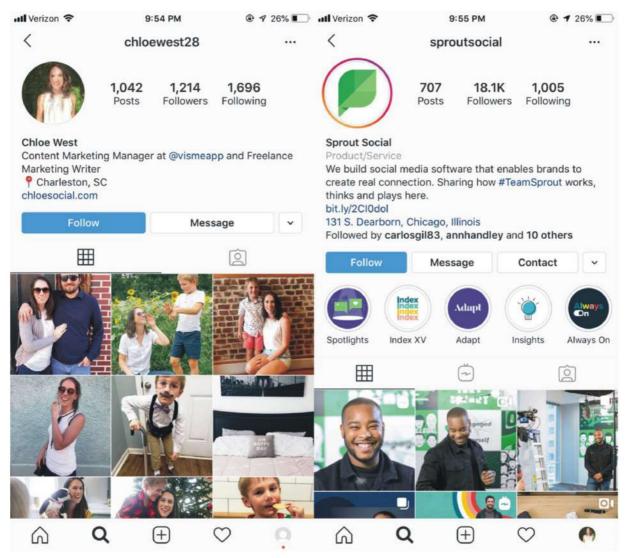
Shreya Agarwal 3<sup>rd</sup> Year, B.Com., Sec-A2

Is the world we inhabit gradually becoming more of an 'Instagramic'? Seemingly more real than reality itself! Starting from early morning updates to the ones received late night, we are inundated with millions of Instagram feeds! Schools, Colleges, Art-rooms to Museums all come alive in the Square Photo space of this social networking site. The only place one needs to visit, is their "pages". People would 'follow' not only those pages but also you as a person. There would be influencers who would be people having million/ trillions followers', who would be most "s-talked". Greetings done right! Every time on any occasions there would not only be chirps of people, but only "reacts".

What about you? Your Identity will be what is shown in your "profile". People will be 'viewing' your daily 'posts' and decipher your personality from your feeds. The 'highlights' would define your achievements and the 'Stories' will be your diary. People would be watching you through stories that will be shared with everyone while some exclusively with 'close friends'. If you are someone with a Private Account, you will be showcased as an introvert and someone with a Public one as an extrovert or an open book. One may also have "multiple accounts" just like a person with 'different personalities'. You could have an IGTV which will surely keep you entertained. You can surely interact with anyone through the arrow on the top right corner of your

instagram page It doesn't end here. What about the job? There are exclusive pages with different job opportunities. Instagram also provides options to one like a business profile. Even there are many pages showing shopping alternatives which support door to door services. Anything with a good content, will surely become viral. Though Instagram is an entertainment platform, if one has talent then there are endless opportunities. Indeed, the 'Insta filters' are very supportive. Anything has to be on Instagram to make it a 'trend'. Soon the world with Instagram will seem like a boomerang, everything revolving around you will eventually come back to you. It is a totally creative and adventurous social networking platform.







Bishaka Mukherjee

1st Year, B.Sc (TCFS)

Success in life comes when you simply refuse to give up. Setting up goals and strong a conviction to face all obstacles, failures and loss can only act as motivation. The first e-commerce adventurers in India tried their luck during the infamous dotcom era of 1999-2000. The e-commerce industries faced stiff competition in the market. The inclination of people towards these e-commerce industries was not as expected.

In the year 2007, Sachin Bansal and Binny Bansal decided to create an online bookstore tailored to the unique needs of Indian consumers. Sachin and Binny former students of IIT Delhi came up with this idea while they were working in an e-commerce giant Amazon.com. By the time Sachin and Binny were about to enter the Indian e-commerce industry, most of the early entrants had already shut. There had

been several changes in the Indian market from 2000-2007. Broadband networks were rapidly penetrating into smaller towns of India. Years of booming economy had created a new class of consumers with significantly higher disposable



incomes. The numbers of internet users were increasing day by day. The Bansal's thought it was the appropriate time to step up in the market and plug in the gap. In September 2007, the two Chandigarh natives quit their jobs, pooled Rs. 4 lakh

together from their savings and launched Flipkart.

Since then, there has been no looking back. The Bansal's took a huge risk by entering into the e-commerce industry, but deep down they had faith in themselves and in their idea. From its humble beginnings in a two-bedroom apartment in Bengaluru's Kormangala

area as an online bookstore, today Flipkart is arguably the country's largest and most exciting ecommerce company. A two man company with a starting capital of Rs. 4 lakh, now employs almost 4500 people with an annual turnover of \$6 billion (2019). Flipkart has redefined e-commerce business in India. The success of Flipkart lies in its ability to understand e-commerce in the context of the Indian market. At present, Flipkart has eight warehouses

across the country. It also runs its own delivery network in 27 cities.
Since the start of 2018, Flipkart has already seen several milestones- a new campus at Embassy Tech Village, the successful on boarding of over 1,30,000 third-party sellers, and expanding its product catalogue to house over 80 million products. As "Faith can move mountains" (Matthew

17:20) and in the case of Sachin and Binnyunshakeable faith and confidence along with hard work, did give them a positive result, a success story that continues to motivate a generation of aspirants to take the plunge.



Believe in youself, work hard, work smart and passionately present your best self to the world.

-Hill Harper





# LESSONS Of LIFE

Sakshi Agarwal

In our lifetimes, we sometimes come across people and feel an instant connection that they were meant to be there, to serve some sort of purpose, teach a lesson, or to help figure out who we are or who we want



to become. We never know who these people may be, but when we lock eyes with them, we know at that very moment that they will affect our lives in some profound way.

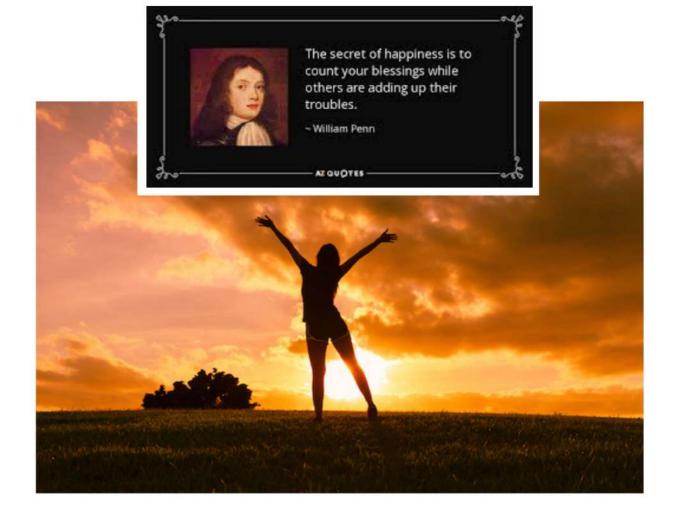
At times, things happen to us that may seem utterly horrible, painful, and unfair at first, but as we reflect, you will find that without overcoming those obstacles you would have never realized your potential, strength and willpower. Everything happens for a reason. Since, nothing happens by chance or by means of luck; whether it is illness, injury, love, lost moments of true greatness, and sheer stupidity- all occur to test the limits of your soul. Without these small tests, however profound or insignificant they may appear to be, life would be like a smoothly paved, straight, flat road leading to nowhere. Though it would be safe and comfortable, but with dull and utterly meningless.

The people who affect our lives through the trials and tribulations of experience, help to create who we eventually become. A lot can be learnt even from bad experiences. In fact, they are probably the most poignant and important ones. If someone hurts us, betrays us, or breaks our heart, it is always better to forgive them- for they have helped us learn about trust and the importance of being cautious when we open our hearts. If someone loves us, love them back unconditionally, not only because they love us, but because in a way, they are teaching us to love and how to open our heart and eyes to things.

Make every day count!!! Appreciate every moment and take from those moments everything that we possibly can do for we may never be able to experience it again. Talk to people that we have never talked to before, and actually listen. Let oneself fall in love, break free, and set high sight. Hold the head up because we have every right to. Affirm that we are a great individual and believe in one's own self, for if we don't believe in ourselves, it will be hard



for others to believe in us. We can make anything we wish out of our life. Create our own life then go out and live it with absolutely no regrets.



### **INSPIRATION**

#### Ishika Jalan

3rd Year B.Com. Sec-A3

The fire in me is enough to ignite my spirits to reach the sky. The intoxication of my dreams makes me fly high. Though I know that sky is the limit, But I always try to reach those stars whose Brightness makes me shine like a solar unit. The passion of reaching the stars is not to Be forgotten.

My dreams keep me alive-Though Life is enough to give a hard blow to my Aspirations, Dreams become Ladder of my inspirations.

The brave heart which was long lost in Those dreamy lanes of failure, Resurrects like a Phoenix. The blood that runs in my veins, Filled with anger and aspirations to Rise beyond my pains.

Because the fire in me is enough to ignite My spirits to reach the sky, The intoxication of my dreams makes me fly high.





### **DIGNITY**

#### Ritika Agarwal

2nd Year B.Com. Sec-D

She wasn't meant for the scars you gave her,
She wasn't meant for the tears you gave her.
She wasn't meant for the tantrums you showed her,
She wasn't meant for the heartbreak you gave her.
She wasn't meant for the smile she lost,
She wasn't meant for the self-respect she lost.
She wasn't meant for being taken for granted,
She wasn't meant for the traps you implanted.
Instead she was only meant for the dreams you showed her,
And the promises you made her crave for.



### **OF KINGS AND QUEENS**

#### Khushboo Bagaria

1st Year B.Com. Sec-D

Show me your kings, And I will show you the queens that willed them, That motivated them To do better.

Do you think they did it alone? Built whole armies, And conquered thrones?

Constructed promised lands, That would outlive the sun Resurrected prosperity from ash and bone?

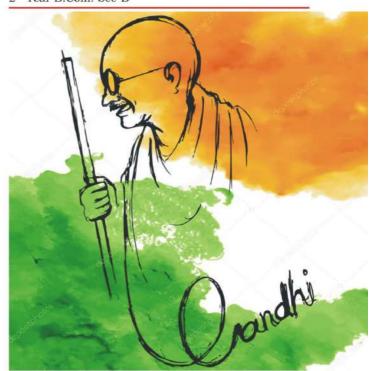
A crest is not just a man made thing --It is also created by generations of women Who nurture through compassion and care.

Show me your kings, And I will show you the queens that willed them, That bred them, that taught them to do better.

### MAHATMA GANDHI: THE APOSTLE OF PEACE

Ritika Agarwal

2nd Year B.Com. Sec-D



Mahatma Gandhi-The father of our nation;

The reason for our reputation;

He helped us gain justice;

From the tyrannical behaviour of the British.

A multifaceted personality;

Who brought in equality-

supporter of non-violence;

Who helped people gain self-confidence.

A man who looked as simple as the spinning wheel;

All his life, he gave and cared;

Without any desire or being scared.

He comforted the poor and needy;

By reassuring them of peace and harmony.

O! Redeemer of the World! The Father of our Nation;

We owe you our salutation.

### **FORGING BONDS**

#### Sakshi Agarwal

2<sup>nd</sup> Year, B.Sc. FSNM

She made me smile for a picture in front of the school bus and since then the journey began. From hearing the scratching of leather seats in my school bus to going alone in the cab -

Life was no longer the same...

Is everybody a Wanderer?

I tell mama, over and over, to just let things go...

And she keeps trying too-

But every time as the school bus passes by, she is not able to hold up.

She still longs to see that grease and mud on my school shirt....

Sadly she can't anymore.

Dad's unhappy too as I have to leave...go somewhere far away from him.

He still wants to cuddle and piggyback me onto his shoulders...

And put me back to sleep from the couch to bed-

But he can't.

I long to dozing off on my Dad's shoulders one day

As he secures me from all adversities.

Now, every time my sweetheart dad tells me that he loves me,

We keep gazing into each other's eyes with awe.

I can feel the warmth of his woollen mitts.

His affectionate caresses don't make me feel like going back, again.

As my mind longs for my loved ones... but that desire won't stop me to move on.

Yesterday is gone

Today will only happen once

And as I move on to explore the world of future possibilities

Wondering, if, at least once,

I had dared to choose the best option.





### ADIEU!

#### Shreya Agarwal

3rd Year B.Com. Sec-A2

An untimely parting of ways dear friend Then you were my friend, now almost a stranger.
Is it ever possible to forget a bond so glorious?
Our friendship no longer remains so serious!
Still memories of best moments lurking everywhere,
Driven by a giant 'wedge' which lodged somewhere.
Sometimes my mind contrives,
Wasn't this was a true friendship for life?
Words rarely describe,
Feelings which remained unsaid.
I tried my level best, that it lasts,
But it's better we remove it from our past.
Memories fade and ultimately mortals rest in dust.
So now, don't care to make such things ever last....



### **COLLEGE DAYS ARE THE BEST**

#### Kajol Agarwal

1st Year B.Sc. ID

We laugh to the fullest,

We smile from the heart.

We joke till we are tired of giggling,

We dance till our heart is tired of smiling.

In these beautiful college days...

We are wilful,

We make mistakes.

These are the days we learn,

what's right and wrong.

These are the days which initiate us,

To our responsibilities.

The most precious moments of our life,

The most important days of our youth.

These cherished memories and lessons will never leave us.

Etched in our memories they always remain...

To make you smile when you are sad.

These lessons will be there;

Amidst all success or failure

These treasured memories remain unforgettable ever.

### **OF SHARING IN LOVE**

Jhankar Parakh

1st Year B.Sc. TCFS

I'll give you the sun, to ignite you in it's splendour. I promise!

And together we'll shine, for each other.

Is that what love is supposed to be?

Is it merely sacrifice? Or is it sharing?

To share darkness and light.

To share sorrows as well as merriment in every plight.

No matter what, never lose your gleam and glory.

Because that's the thing that'll always keep love alive.

I'll give you the sun, I'll give you the rain.

I'll give you everything, that'll ever take to endure every strain.



### **JOURNEY OF A GIRL'S LIFE**

#### Anisha Chaudhary

2<sup>nd</sup> Year B.Sc. ID

Was just six When she was disallowed Interaction with male mates. And diverted from cricket bat For the all new Barbie set -Endless doll dressing Was all she played. Was just ten When the short frock Was replaced with a kurta. "New attire!" Was what she thought... Was only twelve When she was made to sleep alone With curtains pulled. Thinking this is cool to stretch on bed, Like a Sleepless Panda Who hadn't slept in years. When she was fourteen Seven days no bed Closed in a room With a flooring mat! It was just sixteen When summer became unbearable:

Sweating under her full-sleeved dress.

Was just eighteen When hands were daily burnt And none cared. "It's a part of growing up" Was what she heard. She was just Twenty-one When suddenly She was asked to leave Her readings And go for a coffee date With someone she didn't know. Was Asked to fall in Love Which she never felt anything similar. Palms designed with henna Bearing name of that coffee man. Now her playlife at six Became her real life at twenty-six.. When she felt the pain of labour Bringing forth another generation of Humans like us... To nurture another life. Who knows? Perhaps only to be thrown

To the confines of an old age home.





### दूर हूं, बस कुछ दिनों के लिए...

Shreya Agarwal 3<sup>rd</sup> Year B.Com. Sec-A2

परदेश में रहते फिरते, इस भीड़, अजनबी चेहरे में अपना कोई खोजते रहते। अलार्म की गूंज से आंखें खुली तो मैंने बस मां को आवाज़ लगाया, पर में तो घर से दूर हूं यह बात कुछ देर बाद याद आया। वहीं खुद से सब करना, टिफिन का यू ठंडा बासी खाना,

छोड़ कर अपना घर और शहर

पापा का प्यार, मम्मी का डाटना आखिर यही सब, घर की बहुत याद दिलाता है।

कुछ बनने आए हैं, कुछ बनकर दिखना है, मां पापा का नाम उच्चा करना है। समय है, बीत जाता है, परिवार और घर से दूर रहना, आखिर इंसान सीख जाता है।

# SYMPOSIUM ON INNOVATION IN TEXTILES & APPAREL MANUFACTURING

The Department of Textile Science, Clothing & Fashion Studies organized a one day Symposium on Innovation in Textiles & Apparel Manufacturing on 16<sup>th</sup> September, 2019. Mr. Ashish Dhir, Associate Vice President Technopak Advisors, New Delhi graced the occasion as the Chief Guest.

Eminent speakers from the industry who deliberated at the seminar:

- Application of Digitalization & Automation in Garment Manufacturing: Mr. Sajith Kumar, Vice-President (Digitization & Automation Solutions), IIGM Pvt. Ltd, Bangalore.
- Artificial Intelligence & its Application in the Apparel Industry: Ms. Mausmi Ambastha, Co-founder, ThreadSol, Nodia
- Automation in Sewing Technology: Key Industry Trends in the Changing Market: Mr. Anil Singh, Senior Advisor, Mehala Machines India Ltd., Kolkata.

Students, research scholars and faculty members of various other Institutes like ATDC, Government ITI for Physically Challenged Boys & Girls, NSHM Knowledge Campus, EcoAvid School of Ethical Design Studies, Kolkata also participated in the Symposium.













### INTERNATIONAL WORKSHOP ON

### LIMITLESS POTENTIAL-A STEP TOWARDS GENDER EQUITY

A 3-day International Workshop on Limitless Potential - A Step towards Gender Equity was organized in association with Vidya Veda Foundation and Esesson Foundation, Australia at the Main Campus from 8<sup>th</sup> to 10<sup>th</sup> January, 2020 for the students of the Departments of Sciences, Commerce & Management.

Dr. Ajitha Naidu Sugnanam, Dentist with Royal Australia Forces and Managing Trustee, Esesson Foundation was the Keynote Speaker and she was accompanied by experienced and skilled trainers from USA and Australia:

- Ms. Kate McCambley, Nutritionist from USA
- · Ms. Deborah McCann, Psychology Resilience Trainer from USA
- Mr. Sully Luepke, Physical Training Instructor from USA
- Mr. Sith Saengon, Lecturer on Leadership & Team Building Skills from USA
- Mr. David Flood, Self Defence Instructor from Australia

The workshop mainly comprised of six sessions - Goal Setting & Follow-up; Psychology; Nutrition & Wellbeing; Physical Training, Leadership & Team Building and Self Defence to promote and create awareness about self protection amongst young girls and women students through fundamental self-defense techniques, knowledge of proper nutrition to lead a healthy life, stress management and building of self confidence.







JDBI TIMES 2019-2020 | 117

## NATIONAL NUTRITION MONTH

The Department of Food Science & Nutrition Management conducted several activities on the theme, Nutrigenesis: Foundation of a Healthy Life (alleviating Maternal and Child Malnutrition) as a part of the National Nutrition Month from 1<sup>st</sup> to 7<sup>th</sup> September, 2019.







Various activities conducted on the theme were:

- a) Special Lecture on Problems associated with malnutrition and nutrition related government policies: Ms. Alivia Biswas, Manager, Social Sector, Government Reforms & Infrastructure Development at PwC Private Limited, Kolkata
- Nukkad natak to demonstrate the problem of obesity and anemia among young girls and uncontrolled consumption of junk food
- c) Interdepartmental Cooking Competition on the theme, 'Poushtik Aahar'
- Following outreach activities for mother and young children at seven NGOs.
- Heamoglobin testing in association with Lion's Club of Kolkata (Mother Teresa Sarani) at Hope Foundation.
- Anthropometric measurements to assess incidence of malnutrition among children and mothers.
- Survey on Nutrition using Knowledge Attitude & Practice (KAP) Questionnaire.
- Demonstration of low cost recipes like paushtik ladoo, sprout tikki, pinwheel sandwich with pumpkin and green chutney, pumpkin noodles, ragi premix etc.
- Puppet show- importance of hygiene & safe drinking water to control diarrhea.
- · Awareness through flash cards on personal hygiene
- · Quiz on nutritive facts about food.



# IN SEARCH OF WOVEN AIR FOLLOWING THE THREADS OF

### MUSLIN

From being the pride of the undivided Bengal to being most sought after by the Arabs and the Romans alike during the pre independence years and from there to the beginning of large scale export and manufacturing in the UK, the US and France, muslins the prized fabrics have come a long way. Thus, to make students understand the legacy of India's rich heritage and rise up to protect the dying traditions and revive the fable craft of muslin.

The Department of Textile Science, Clothing & Fashion Studies in association with Weaver's Studio organized a talk on "In Search of Woven Air: Following the Threads of Muslin" by Dr. Sonia Ashmore, Design-Historian and Author of the book, Muslin, published by V & A Publishing, London on 11th September, 2019.

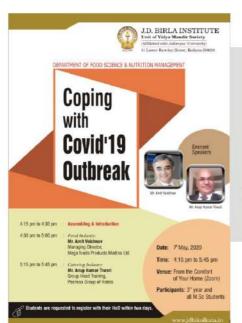












Coping with Crisis
Post Covid'19
Outbreak
on 7th May, 2020.
"Food Industry by
Mr. Amit Vaishnav,
Managing Director,
Mega foods Products
Madras Ltd.
"Catering Industry by
Mr. Anup Kumar
Tiwari, Group Head
Training, Peerless
Group of Hotels,
Kolkata.



Health & Habits on 18<sup>th</sup> May, 2020 "Dr. Shikha Sharma, Founder & MD, Dr. Shikha's Nutrihealth



Health & Wellness during Challenging Times on 13<sup>th</sup> May, 2020. Personal Health & Hygiene by Mr. Ritesh Bawri, Health & Wellness Counsellor, Breathe Again, Kolkata Importance of Nutrition In Building Immunity by Ms. Eileen Canday, Chief Dietitian from Sir HN Reliance Foundation Hospital, Mumbai "COVID-19 & Global Food Systems by Dr. Suparna Ghosh Jerath, Additional Professor, Public Health Foundation in India, Delhi.



Is Alternative Medicine A Solution? on 20<sup>th</sup> May, 2020. Dr. Rahul Jain, General Medicine & Diabetes Specialist, Belle Vue Clinic, Kolkata Dr. Saptarshi Choudhuri, Associate Professor, Dept. of Practice of Medicine, DN De Homeopathic Medical College & Hospital, Kolkata.



Clothing 3D Fit by Dr. R. Ramachandran (Associate Professor, Department of Fashion Technology, PSG College of Technology Coimbatore) on 19<sup>th</sup> June, 2020.



Fashion Brands: Survival Post Covid '19 on 14th May, 2020. Survival of Fashion Brands by Mrs. Vijaylakshmi Nachiar, Director of Ethicus, Pollachi Tamil Nadu Luxury Brands: Strategies & Opportunities Post Covid'19 by Mr. Wajahat Rather, Founder of Raffughar, New Delhi.



Challenges for the Apparel & Fashion Industry Post Covid'19 on 8th May, 2020. "Global Apparel Market: Beyond 2020 by Mr. Anil Buchasia, Director of Amrit Exports Pvt. Ltd., Kolkata Indian Garment Exports: Changing Dynamics by Mr. Varun More, Director of Denimatic India Pvt. Ltd., Kolkata Fashion Retailing: Challenges and the Road Ahead by Mr. Arjun Agarwal, Fashion designer, and Director, Arjun Transworld-trends Pvt. Ltd. Kolkata



Scope for Technical
Textiles after Covid 19
by Dr. S. Amsamani,
Professor (Department
of Textile and Clothing,
Avinashlingham
Institute for Home
Science and Higher
Education for Women
University, Coimbatore)
on 20th June, 2020.



Sustaining Traditions through New Ideas on 12<sup>th</sup> May, 2020. Dr. Hemlatha Jain, Founder of Punarjeevana, Bangalore



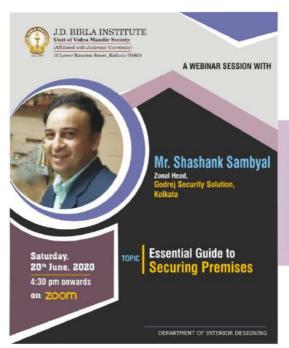
Trend Forecast & Product
Development by
Dr. Ela Dedhia
(IQAC Coordinator and Head of Department of Textiles & Fashion Technology, College of Home Science, Nirmala Niketan, Mumbai) on 22<sup>nd</sup>June, 2020.



Anti-Viral Surface Coatings to prevent the spread of COVID-19 through Touch by Dr. Swapan Kumar Ghosh (NOVA Surface-Care Centre Pvt. Ltd., Mumbai) on 16<sup>th</sup> June, 2020.



Heritage Buildings: Renovation & Restoration by Mr. Debashish Nayak (Director of Centre of Heritage Management, Ahmedabad) on 15th June, 2020.



Essential Guide to Securing Premises by Mr. Shasank Sambyal (Zonal Head, Godrej Security Solutions, Godrej & Boyce Mfg. Co., Kolkata) on 20th June, 2020.



Discover your Wellness
Potential on 15th May,
2020. Procrastination and
Unlocking One's Potential
by Dr. Shishir Palsapure,
Founder Director,
Morphie Minds, Nagpur
(Affiliated Training Center
of Albert Ellis Institute,
New York) & International
Motivational Speaker
Nurturing the Mindset of
an Entreprencur by Mr.
Lokesh Nathany, Life,
Business and Financial
Coach, Networker and
TEDx Speaker
Wellbeing and
Epidemiology by Dr. Vivek
Furtado, Head of Unit
Mental Health &
Wellbeing, Warwick
Medical School, University
of Warwick, U.K.





### webinars



Setback is a Set to Go Up on 15th May 2020 Mr. Pradip Chopra, Motivational Speaker & Chairman PS Group



Job opportunities in Post Covid World on  $6^{\rm th}$  June, 2020

- Ms. Avanti Bose, Director & Financial Services Leader, PWC SDC
- Mr. Siddharth Pansari, Director, Primarc Projects & Story
- Mr. Harish Agarwal, Managing Partner, (Kolkata & East), Ernst & Young Services Pvt. Ltd.



Impact of Lockdown on Global Economy on 27th May 2020

- Prof. Pramod Pathak, Professor, Department of Management Studies, ISM, Dhanbad
- Dr. Rajesh Bhattacharya Associate Professor, IIM Calcutta



Strategies for Revival of Global Economy Post Lockdown on 29th May 2020.

- Mr. Bala Subramanium, Investor, Advisor & Mentor
   Control of the Control
- Prof. Arup Choudhuri, Chairman & CEO, Acasia Global Consulting LLP
- Dr. Ravinder Vinayek, Director, DSPSR, Rohini, New Delhi & President, Global Network of Business Researchers



### THE FOLLOWING SPECIAL LECTURES WERE ORGANIZED ONLINE for POST GRADUATE DIPLOMA IN DIETETICS & APPLIED NUTRITION STUDENTS

- Holistic Approach for Gut Health by Ms. Ranjani Raman, Owner & Founder at Nutrition Tattva, Bangalore on 9<sup>th</sup> June 2020.
- Special Nutrition for Special Children by Ms. Apeksha Thakkar, Health, Content Writer & Diabetes Educator at Just for Hearts, Mumbai on 12<sup>th</sup> June, 2020.
- Client Diaries for Diet Counselling by Nidhi Shukla Pandey, Dietitian & Founder of Healthizen's Blog on 15th June, 2020.
- The Bond: Genes, Food & the Environment by Mrs. Janani Tamilvanam, Founder & Course Instructor at Institute of Nutrigenetics, Coimbatore on 17<sup>th</sup> June, 2020.
- Managing an Emotional Appetite during Stress, Anxiety & Depression by Mrs. Jennifer Dhuri, Owner & Founder at Jennifer's Health & Diet Solutions, Mumbai, on 19<sup>th</sup> June, 2020.
- 6. Mrs. Jennifer Dhuri, Owner & Founder at Jennifer's Health and Diet Solutions, Mumbai
- 7. Mrs. Ranjani Raman, Owner & Founder at Nutrition Tattva, Bangalore
- 8. Dt. Edwina Raj, Dietitian in Astor Hospital, Bangalore
- 9. Mrs. Apeksha Thakkar, Health Content Writer & Diabetes Educator at Just for Hearts, Mumbai
- 10. **Dt. Nidhi Shukla Pandey,** Dietitian & Founder of Healthizen's Blog, Raipur
- 11. Mrs. Tulsi Rijhwani, Nutritionist & Specialist in Italian Gelato at All About Gelato, Indore
- 12. Mrs. Janani Tamilvanan, Founder & Course Instructor at Institute of Nutrigenetics, Coimbatore
- 13. Ms. Amritha Devnani, Assistant R&D Manager Nutrition & Health at HUL, Bangalore



Anthropometric Techniques for Nutritional Assessment by Dr. Aditi Roychowdhury Sen, Ex-Regional Head, CINI & Technical Consultant Nutritionist, United Nations Children's Fund Field Office for West Bengal



Food & Beverage Controls: The Key to Profitability in Culinary Business by Mr. Surajit Dasgupta, Assistant Professor, Guru Nanak Institute of Hotel Management



**First Aid, Resuscitation and CPR** by Dr. Indranil Mitra, Senior Consultant, Ruby General Hospital



Self Image-Key to Building Career in Hotel Industry by Mr. Anup Kumar Tewari, Corporate Training Manager, Peerless Group of Hotels



Nutrient Drug Interaction in Clinical Practice by Ms. Sanghamitra Chakravarti, Head of Department (Nutrition & Dietetics), Medica Superspecialty Hospital



The Current Challenges of Nutritionists by Ms. Nidhi Prakash, Nutritionist & Freelancer



Psychological & Diet Councelling by Dr. Debdulal Dutta Roy, Associate Professor, Psychology Research Unit, Indian Statistical Institute, Kolkata



**Nutripreneurs** by Ms. Nikita Bardia, Founder and Chief Nutritionist, Health Quo



**Textile Design Development** by Ms. Neha Jhunjhunwala, Director (Design & Development) at J. J. Exporters Ltd.

Fabric Construction Techniques by Mr. Montu Basak, Associate Professor, NIFT, Kolkata



Activated Carbon by Dr. Rakesh Kumar Ghosh, Scientist, NIRJAFT



Indian Textile Industry Scenario by Mr. Arindam Mukherjee



Managing Projects by Ms. Rupande Shah, Director, Rupande Shah and Associates



Unconventional Building Materials by Ms. Payel Pal, Archietect



**Beautiful Home Techniques** by Ms. Vrinda Khemka, Proprietor, Swayam City New Age Nirman



**History of Furniture** by Mr. Pulaha Dasgupta, Industrial Design & Technical Consultant



Feng Shui by Ms. Pinky Kapoor, Renowned Vastu & Feng Shui Consultanta

**Air Conditioning - An Overview** by Prof. Tapas Bhattacharya, Dept. of Architecture, Jadavpur University



Women's Rights & Family Laws in India: An Overview of Current Developments and Debates by Mrs. Ruchira Goswami, Assistant Professor (Grade-III) and Head, Centre for Child Rights, The West Bengal National

**Social Cognition** by Dr. Deepshikha Ray, Assistant Professor (Grade-III), Dept. of Psychology, University of Calcutta



Alcoholism & Depression by Mrs. Nandini Choudhury, Director, Crystal Minds



**Recognizing Alzheimer's** by Dr. Sidharth Shankar Anand, Consultant Neurologist, Institute of Neurosciences.



Schizotypal Personality Disorder by Dr. Sanjay Garg, Head, Department of Mental Health & Behavioral Sciences, Fortis Hospital



**Autism & Mainstream Education** by Ms. Indrani Basu, Founder Director, Autism Society, West Bengal



Mainstreaming of Women into Male Bastion: Challenges Ahead by Dr. Tumpa Mukherjee, Assistant Professor, and Women's Christian College



Handling Different Classroom Situations by Mrs. Lipica Bhattacharyya, Special Educator, Apollo Gleneagles Hospital Kolkata



**Data Analytics & Game Theory** by Dr. Shirish C. Jeble, Faculty of Analytics, IT and Operations at ICFAI Business School, Pune



Corporate Governance by Dr. Saurav Roychoudhury, Professor of Finance & Economics, Department of Business School of Management and Leadership, Capital University, Columbus, Ohio, USA



**CSR & Corporate Governance** by Dr. Sumana Ghosh, Assistant Professor, St. Xavier's College, Kolkata



**Entrepreneurship & Start ups** by Mr. Pradeep Chopra, Chairman – ILEAD



Soft Skills by Mr. Pradeep Chopra, Chairman - ILEAD



Participation of Women in Family Managed Business by Dr. Parimal Merchant, Director – Global Family Managed Business Program, SP Jain School of Global Management



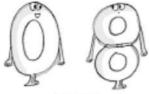
Ethical Hacking by Mr. Vishal Dave, Business Head at Revolution, Kolkata through YUVA (Young Indians wing of CII)



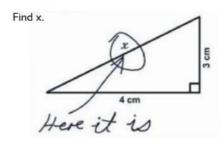
Intellectual Property Rights by Mr. Krishana Singh, Owner Goldfinn Technologies through YUVA (Young Indians wing of CII)

### **College Funnies!**

What did the zero say to the eight?



Nice belt.



Etc.

The abbreviation used when I can't think of any other examples.

Q. Why did the math book look so sad?

A. Because it had so many problems.

When I say I miss school, I mean my friends and the fun. Not the school.



Q: What did the scientist say when he found 2 isotopes of helium? A: HeHe

# WORKSHOP BAKING DELIGHT

Conducted by **Evlin Florence Rozario**Home Baker & Pastry Chef

Food Science & Nutrition Management Department





### WORKSHOP

### FOOD DESIGN & PRODUCT DEVELOPMENT

Conducted by Mrs. Anvi Gandhi Alumni and Proprietor, The Nutri Lab, Kolkata.

Food Science & Nutrition Management Department

WORKSHOP

### NAPKIN FOLDING

Conducted by

Mr. Debanjan Bhoumik Proprietor, Radiance Academy of Management Studies

Food Science & Nutrition Management Department





# WORKSHOP PATTACHITRA PAINTING

Conducted by

Ms. Mayna Chitrakari

Pattachitra Expert from Mednipur

Textile Science, Clothing & Fashion Studies Department

### WORKSHOP LEATHER RATIK

Conducted by

Mr. Pradip Chatterjee

Freelance leather batik designer from Shantiniketan

Textile Science, Clothing & Fashion Studies Department





WORKSHOP

### DEVELOPING A MOODBOARD

Conducted by **Ms. Sheeba Sodhi** Design Head, JFC Pvt. Ltd.

Textile Science, Clothing & Fashion Studies
Department

**WORKSHOP** 

# FABRIC PAINTING

Conducted by

Ms. Mousumi Paul

Fevicryl Certified Specialist from Pidilite

Textile Science, Clothing & Fashion Studies
Department





### WORKSHOP

# COLOUR & TEXTURES

Conducted by

Ms. Neha Jhunjhunwala

Director-Design & Development,
J. J. Exporters Ltd.

Textile Science, Clothing & Fashion Studies Department

# WORKSHOP KANTHA

Conducted by Mr. Nurul Kedia Kantha Craftsman from Purulia

Textile Science, Clothing & Fashion Studies Department



WORKSHOP

### FURNISHING DESIGN DEVELOPMENT

Conducted by **Ms. Neha Bharpilania** Senior Designer, J.J. Exporters

Textile Science, Clothing & Fashion Studies Department





### WORKSHOP FURNITURE I AYOUT

Conducted by

Ms. Chandni Karnawat

Proprietor, Interocraft

Interior Designing Department

### WORKSHOP CELE

### SELF DEFENSE

Conducted by Ms. Ryena Gupta Karate champion in association with CII, Yuva

Interior Designing Department





# PROJECTIVE TECHNIQUES

Conducted by Ms. Prachi Rathi Founder & Director, Letsmile Counseling Centre, Kolkata

Human Development Department

WORKSHOP

# ART OF BODY LANGUAGE

Conducted by

Mr. Partha Pratim Roy

Founder & Director,
Psychogenesis Institute, Kolkata

Human Development Department





# WORKSHOP PUPPET MAKING

Conducted by Mr. Dilip Mondal Secretary, Dhumketu

Human Development Department



## ASPECTS OF NUTRITION

Ms. Prerna Solanki, (Registered Dietician) and Ms. Sonal Dhanuka, Proprietors of Nutridiction for 1<sup>st</sup> year students.

### FOOD DESIGN & Culinary Arts In Italy

Ms. Pallabi Gupta, Manager, (Education Desk), Indo Italian Chamber of Commerce & Industry, Mumbai was organized for 3<sup>rd</sup> year students.





### START-UPS IN THE HOSPITALITY INDUSTRY

Mr. Rahul Arora, Chef & Proprietor, Bon Appetit and Paranthe Wali Galli for 3<sup>rd</sup> year students.

### CAREER OPTIONS IN THE TEXTILE INDUSTRY

Mr. Santanu Das, Director, Maku Textiles Pvt. Ltd. for 1<sup>st</sup> year students.





### DESIGNING A CAREER IN THE GARMENTS EXPORT INDUSTRY

Mr. Ayush Murarka, Director, Ventures for 3<sup>rd</sup> year students.



### FASHION & Design in Italy

Ms. Pallabi Gupta, Manager, (Education Desk), Indo Italian Chamber of Commerce & Industry, Mumbai for 3<sup>rd</sup> year students.



# ENTREPRENEURSHIP IN TEXTILES & APPAREL

Ms. Radhika Joshi, Partner Ensoi for 1<sup>st</sup> year students.



### DIFFERENT CAREERS IN THE FIELD OF INTERIOR DESIGNING

Ms. Ritu Duggal, Director, Decorage and Associates for 1st year students.

### CAREER COUNSELING IN INTERIOR DESIGNING

Mr. Sanjay Agarwal, proprietor of Shristi Interiors for 3<sup>rd</sup> year students.





### CAREER COUNSELING ON ENTREPRENEURSHIP IN INTERIOR DESIGNING

Ms. Apurva Choraria, Director of ACE Space Designs for 1<sup>st</sup> year students.

### PERSPECTIVES OF PRE-SCHOOL EDUCATION

Mrs. Gargi Sen, Principal Star Kids School for 1<sup>st</sup> year HD students.





# CAREERS IN HUMAN DEVELOPMENT

Ms. Megha Rathi, Counselor and Clinical Psychologist for 1<sup>st</sup> year students.

### EMERGING JOB SKILLS IN THE FIELD OF HUMAN DEVELOPMENT

Mrs. Vasundhara Kaul, Chief Impact Officer and HOD- Training, Drishti for 3<sup>rd</sup> year students.





### CAREER OPTIONS FOR A CHARTERED ACCOUNTANT

Mr. Sanjib Sanghi, Chartered Accountant, EIRC (Eastern India Regional Council) of ICAI (Institute of Chartered Accountants of India) for 1st year students.



### CAREER OPTIONS FOR A COMPANY SECRETARY

Mr. S. Sreejesh, Assistant Director, Institute of Company Secretaries of India, Eastern India Regional Council for 1st year students.



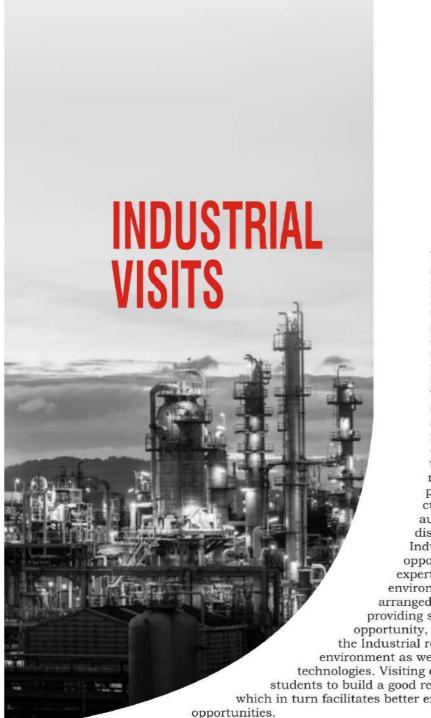
### NMAT EXAM, CAREER DESIGN & ENTREPRENEURSHIP

Mr. Suhas Kaul, Representative, Graduate Management Admission Council for 3<sup>rd</sup> year students.

### IMPORTANCE OF DATA ANALYTICS IN BUSINESS MANAGEMENT AND ADMISSION PROCEDURE FOR JOINING CBS

Mr. Sanjib Biswas, Assistant Professor along with Ms. Soma Bhattacharya, Senior Executive, Calcutta Business School for 3<sup>rd</sup> year students





With an aim to go beyond academics, industrial visits provides students a practical perspective to the real world scenario of the industry. Besides giving an exposure from the academic point of view, the main aim of these industrial visits are to provide the students with a practical working environment. They also provide students a good opportunity to gain full awareness about industrial practices. It provides students with an opportunity to learn practically through interaction, working methods and employment practices. It gives them exposure to current work practices and augments theoretical knowledge disseminated within college premises. Industrial visits provides an excellent opportunity to interact with industry experts and know more about industrial environment. The Industrial visits are arranged by the college with an objective of providing students with a functional

opportunity, whereby they can get a glimpse of the Industrial realities and challenges of work environment as well as an awareness about new technologies. Visiting different companies actually helps students to build a good relationship with those companies which in turn facilitates better employment and internship









1. Bhagwati Foods Pvt. Ltd. 2. Raja Udyog Pvt. Ltd. 3. Ankur Kala 4. Belle Vue Clinic 5. Columbia Asia Hospital 6. Annamrita Foundation (Midday Meal Centre) 7. Kalyan Ashram-HelpAge India 8. Parle Products Private Limited









- A Cube Apparel Ltd.
   UM Exports
   Ensoi
   Jaya Shree Textiles Pvt. Ltd.
   Rajlakshmi Cotton Spinning Mills Pvt. Ltd.
   Rupa Company Pvt. Ltd.
   Kothari Processors Pvt. Ltd.
- 8. Shiv Shankar Industries Pvt. Ltd.







- Residential site at Bangur
   Greenply Industries Ltd
   Duroplast Furniture Systems Pvt. Ltd.
   Vijay Manzil' A Rajbari of Burdwan
   Jaquar Orientation Centre
   Godrej Interio













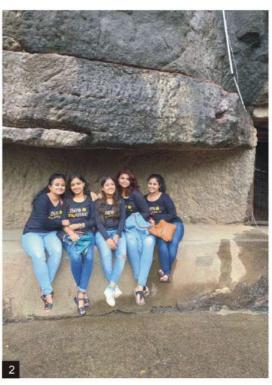
- Indian Institute of Cerebral Palsy (IICP)
   Lumbini Park Mental Hospital
   Society for Indian Children's Welfare
   Alzheimer's & Related Disorder Society of India (ARDSI)
   Development Action Society
   Integrated Child Development Scheme (ICDS), an Anganwadi, Bagbazaar
   Ramakrishna Mission Blind Boys Academy
   Narendrapur Ektara
   Parichay Foundation
   Turning Point Rehabilitation Centre







- 1. Annamrita Foundation, Pune 2. Ellora Caves, Aurangabad
- 3. Pure Gold Cheese factory, Mahabaleshwar
- 4. Sula Vineyards, Nasik



### EDUCATIONAL EXCURSION

### Department of Food Science & Nutrition Management

Educational excursions provide students with an opportunity to collaborate with teachers, and integrate new perspectives with informal environments to enhance learning initiatives. It also helps to stimulate student's reasoning skills and helps in developing various life-skills, such as team building, time management etc.

Pune, Mumbai, Mahabaleshwar, Shirdi, Aurangabad, Ellora/Ajanta from 12<sup>th</sup> to 22<sup>nd</sup> October, 2019











- 5. Columbia Asia Hospital, Pune 6. Marathwada Cold Storage 7. Mapro Foods Pvt. Ltd, Mahabaleshwar 8. Katraj Dairy, Pune
- 9. FSNM students and teachers







1. Ajanta Caves, Aurangabad 2. Mala's Fruit Products, Mahabaleshwar 3. Brintons Carpet Asis Pvt. Ltd., Pune 4. NEBCO Textile Industry, Mumbai



### EDUCATIONAL EXCURSION

Department of Textile Science, Clothing & Fashion Studies

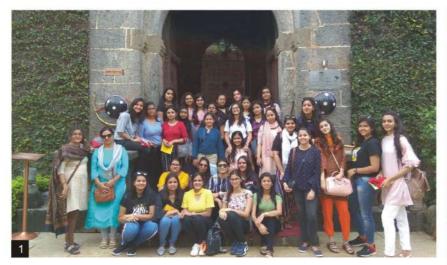
Educational excursion is undertaken to broaden the student's horizon of knowledge through interaction with the industrial experts and this supplements classroom academic. It also helps instill team building spirit among their peers when they stay together away from home.

Pune, Mumbai, Mahabaleshwar, Shirdi, Aurangabad, Ellora/Ajanta from 12<sup>th</sup> to 22<sup>nd</sup> October, 2019



- 5. Himroo Fabrics, Aurangabad 6. Kalyani Clothing Company, Pune

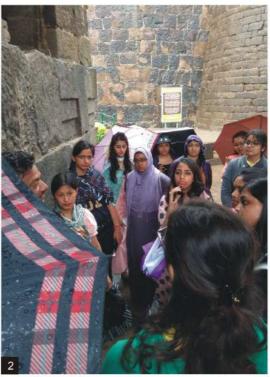
- 7. Kangaroo Leather Pvt. Ltd, Mumbai 8. Kay Kam Art Pvt. Ltd, Mumbai 9. Vidhate Paithani Sarees, Yeola, Aurangabad 10. Wet Blue Footwear, Mumbai 11. Mapro Foods Pvt. Ltd, Mahabaleshwar 12. Madhu Bidri Art Works, Aurangabad







- 1. Fort Jadhav Gadh (Heritage Hotel), Pune
- 2. Daulatabad Fort, Aurangabad
- 3. Bibi ka Maqbara, Aurangabad
- 4. Godrej and Boyce Manufacturing Co. Ltd, Mumbai



### EDUCATIONAL EXCURSION

#### Department of Interior Designing

Final year students are taken for an educational excursion every year to various parts of the country in order to expose them to different industries related to their profession. During such trip, students observe and understand the synergy between traditional and modern aspects of interior designing.

Pune, Mumbai, Mahabaleshwar, Shirdi, Aurangabad, Ellora/Ajanta from 12<sup>th</sup> to 22<sup>nd</sup> October, 2019











5. Ellora Caves, Aurangabad 6. Paint Factory 7. Kailashnath Temple, Ellora 8. Chandra Mats Pvt. ltd, Aurangabad 9. Tribal Museum











### EDUCATIONAL EXCURSION

- Department of Human Development
- Educational trips organized benefit students by providing them with a diversified learning experience. It provides them opportunities to explore areas that can be beneficial to them while selecting their profession in future.
- Pune, Mumbai, Mahabaleshwar from 12<sup>th</sup> to 20<sup>th</sup> October, 2019
- 1. Maher Aashram, Pune 2. Aakanksha Foundation, Mumbai
- 3. Schizophrenia Awareness Association, Pune
- 4. Paraplegic Rehabilitation Centre, Pune 5. Sula Vineyards











6. Mumbai Mobile Creche, Mumbai 7. Muktangan Rehabilitation Centre, Pune 8. Pune Railway Station 9. Katraj Dairy, Pune 10. HD students and teachers





Educational tours encourage holistic learning, taking studies beyond classrooms into an enjoyable experience combining travel and studies. The need for students to excel in critical thinking, problem-solving, leadership, decision making, collaboration, and communication taking learning out of classroom walls, plays a significant part in students learning experience, because they learn as well as have loads of fun during these trips.











### **COMPETITIONS**

During the period of COVID 19 Lockdown, online competitions were organized by the Departments of Food Science and Nutrition Management; Textile Science, Clothing and Fashion Studies and Interior Designing on a weekly basis for the creative engagement of students. These online competitions were organized to strengthen creative interests and ensure better mental health and psychological wellbeing of the students. The students enthusiastically participated in these activities by sending video recordings/ images of their innovative creations. The winners were selected by a panel of teachers from the respective departments. Some selected good videos were shared on the college instagram, twitter and facebook page.



### FACE MASKS WITH SPECIAL FUNCTIONAL FEATURES

Online mask-making competition tried to explore what it means to be healthy in the midst of a pandemic! Mask making offered a unique opportunity to combine creativity and practicality.





### OUT OF WASTE

"REGARD BEFORE YOU DISCARD"- Best out of Waste Online Competition gave students the understanding that innovative strategies can help reuse everyday materials that will not only reduce the waste but may be converted into useful household products. The idea is to familiarize students and building up a sense of environmental consciousness among them.



Organizer



Night Lamp

### RECYCLING TEXTILE WASTE

Recycling and reusing the materials can result in development of fantastic and usable products. Rather than putting these waste materials into the landfills, students devised various innovative and creative ideas to put together something new and useful.







Photo Wheel

Tote Bag









Candle Stand

### RECYCLING **NEWSPAPER WASTE**

Paper recycling is reprocessing waste paper for reuse. Waste papers are either obtained from paper scraps, discarded paper materials, and waste paper material discarded after consumer use. Commonly used recycled papers are old newspapers and magazines.

### RECYCLING PLASTIC WASTE

Recycling is a dynamic opportunity which reduces oil usage, carbon dioxide emissions and the quantities of waste requiring disposal. Recycling is an environmental conservation strategy for the reduction of material use through product reuse, use of alternative biodegradable materials and energy recovery as fuel.



Night Lamp



Flower Pot

### DRAPING INDO-WESTERN STYLE

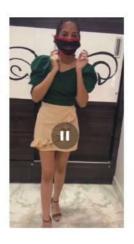
The main objective of the competition was to provide opportunities for the students to apply their creative thinking and innovation skills in developing and showcasing draping styles and techniques. They adapted traditional garments to create a more modern Western outlook.





### FASHION STYLING

Students used garments available at their disposal in their own wardrobes and came out with innovative styling ideas. It was an experience of working on the presentation of creative styling ideas and created different styles from mundane garments.



### BLACK IS LIFESTYLE

Black outfits never go out of style, across age groups and fashion preferences-black garments always looks striking. Not only is it versatile, but it can create a powerful aura on the wearer. Wearing all black makes a declaration to the world that one is edgy, classy, and confident.



### **RE-DESIGN** OLD FURNITURE





The students had to identify any one piece of existing furniture in their homes and transform by remodeling it into another piece of furniture with a different functionality.

### **SHADOWS**



A unique concept of Shadow making competition was arranged for the students of Interior Designing. The students combined a number of objects to create different kind of shadows.

### **ORGAMI**

Origami Competition was conducted to develop the imagination and creative skills amongst students. They were judged on different measures like neatness, presentation and creativity. By transforming a flat sheet of paper into a finished sculpture through folding and sculpting, students created unique and exclusive shapes and structures to showcase their finesse in paper craft.





Sandels

Pinwheel



Pen Stand



Salt Pepper Stand

### PAPIER-MÂCHÉ

Papier-mâché is a composite material consisting of paper pieces or pulp, sometimes reinforced with textiles, bound with an adhesive, such as glue, starch, or wallpaper paste. Students created various products with old newspapers and other wastage paper materials.

### **MANDALA ART**

Mandala is an ancient Indian art form with one identifiable center point containing both geometric and organic forms and an array of symbols, shapes and forms. In essence, mandalas represent the connection between our inner worlds and outer reality. It is both inspirational and therapeutic for students and provides an inner well-being to them.





### STENCIL PRINTING

Students made stencils from thin sheets of material, such as paper, plastic, or metal, with letters or designs cut from it, used it to produce the letters or design on an underlying surface by applying pigment through the cut-out holes in the material.





### SUPERFOODS

Superfoods are nutritionally dense and generally powerhouses of high doses of antioxidants, vitamins, minerals, etc. They are beneficial for one's health, gradually gaining popularity. Students explored nutritional benefits of various superfoods.



'Fenugreek Seeds: The bittersweet symphony of health' -Priya Shukla



'Desi Ghee: A touch of richness to your life' -Mehak Kaushal

### FOR<sub>&</sub> AGAINST

Edible flowers are flowers that can be consumed safely possessing anti-inflammatory and anti-angiogenic properties. They may be eaten as vegetables or as a main part of a meal, or as herbs and feature as part of many regional Asian, European, and Middle Eastern cuisines.



'Edible Flowers: Can flowers be beneficial to health?' -Tafseer Zahra

### BCAA & ANTIOXIDANT RICH DRINK

FOR RAPID RECOVERY IN SPORTS

Students displayed various food items which are good antioxidants -substances that can prevent or slow damage to cells caused by free radicals, unstable molecules that the body produces as a reaction to environmental and other pressures.



'Nutri Punch'- A blend of super seeds for a tasty post-workout refreshment

-Amrita Sarkar



'Pink Rush'- A sports refreshment power-packed with protein, omega-3 and all the goodness of beetroot

-Mehak Kaushal

### IMMUNITY BOOSTING RECIPES

Plant extracts can do a lot to strengthen the body. Students devised various kinds of concoctions to create immunity boosters, much need of the hour during the Pandemic, enhancing their practical and academic skills.



Maa ka Raaj -Ashna Surana



Semolina Pancake
-Upasana Chowdhury



Veggie Kebab Platter -Nandini Gupta



Pumpkin Carrot Soup -Nitika Malani

### STUDENTS' PARTICIPATION IN INTER-COLLEGE FESTS (ORGANIZED BY OTHER COLLEGES)







### ANNUAL DAY 2019

The Annual Cultural Programme of the College was celebrated on 20<sup>th</sup> November, 2019 at Vidya Mandir Auditorium in a befitting manner. It was presided by the chief guest, Mr. Parambrata Chatterjee, Actor, Director, Producer & Television, distinguished guests, elite guardians, staff and students of the college.

Meritorious students from the Departments of Science & Commerce were awarded and a cultural medley of dances and songs was put up by the students limelighting their creative and artistic talents.













### cultural activities & college events









### ANNUAL SPORTS 'ZEST 2020'

On the 15th of January 2020, the college hosted its 1st Inter-College Annual Sports, 'Zest 2020', a day filled with fervour and excitement experienced amidst thrills, shrills and cheers. The chief guest for the day was Major General Arun Roye (Retired), Ati Vishisht Seva Medal, Vishisht Seva Medal, Former General Officer Commanding (GOC) Bengal and Dr. Aparup Konar, Director of Physical Instruction, Sports Board, Jadavpur University as the Special Guest of Honour.

80 students from the Departments of Sciences, Commerce & Management participated in the track events along with students from four guest colleges (Sivanath Sastri College, The Bhawanipore Education Society College, Heritage Business School and iLead).

Children from eight NGOs - EkTara, Future Hope, Hope Kolkata Foundation, Calcutta Rescue, Calcutta Social Project, Jungle Crows, Parichay Foundation and DRCS also participated. The track events organized for the staff and ex-students also saw an impressive participation.









### cultural activities & college events









































JDBI TIMES 2019-2020 | 165



### COMMERCIO CONCLAVE 2019

 $6^{\text{th}}$  Annual Inter-college Business Convention, Commercio Conclave, 2020 organized by the Department of Commerce on  $11^{\text{th}}$  January, 2020 on the theme Ethics in Business is a Good Strategy. Mr. Sanjay Budhia, Managing Director, Patton International Ltd. graced the occasion as the Chief Guest.

More than 11 companies sponsored the event. The event was powered by The Telegraph (T2).

Eleven colleges including the host participated in six events that were evaluated by a panel of eminent jury members.







#### cultural activities & college events

#### JURY

Mr. Indranil Dey

Managing Director and CEO, Irony Furniture Mr. Sanjib Sanghi

DirectorCloud, Info Solutions Pvt. Ltd.

Mr. Sanjib Chatterjee

Senior General Manager, Graphite India

Mr. Ravi Verma

Compliance Officer & Secretary Texmaco Rail & Engineering Ltd

Dr. Dilip Kumar Datta

Director & CEO, Sayantan Consultants Pvt. Ltd.

Mr. Tapas Piplai

Former Executive Director & CEO

Capability Enhancement Centre

Dr. Sumita Chakraborty

Additional Director (Studies)

The Institute of Co &

Management Accountants of India

Mr. B.L. Mittal

Executive Chairman, Sasta Sundar Dr. Indranil Sarkar

Project Manager, Cognizant

Mr. Arup Choudhuri

Chairman & CEO

Acasia Global Consulting LLP

Dr. Pankaj Roy

Principal

Jogesh Chandra Chaudhuri Law College

Mr. Ravi Jaiswal

Senior Consultant, Ernst & Young

Mr. Surojit Banerjee

Marketing Head

Bhagirathi Neotia Women & Child Care Centre

Mr. Ranjeet Kumar Kanodia

Proprietor, R. Kanodia & Associates

Dr. Tapas Roy

Regional Director, ICSI

Mr. Nandan Mall

Founder and Director,

Hulladek Recycling Pvt. Ltd.

Dr. Suman Mukherjee

Director General,

The Bhawanipur Education Society College

Mr. Subrata Kumar Roy

General Manager & Company Secretary, MSTC Ltd.



















### INDEPENDENCE DAY CELEBRATION

The 73<sup>rd</sup> Independence Day was celebrated at the college campus on 15<sup>th</sup> August 2019 with great fervor and enthusiasm. The celebration started with the hoisting of the National Flag which was followed by National Anthem. Patriotic songs were recited both by the teachers and the students. A short cultural programme was presented comprising of patriotic songs and dance by the students.





#### cultural activities & college events

### BASANT PANCHAMI

Basant Panchami - the festival that marks the beginning of spring with the worship of Saraswati, the Hindu goddess of knowledge - was celebrated with great fervour at the college campus on  $29^{\text{th}}$  January, 2020

On the occasion, the entire institute turned a glorious shade of yellow with floral decoration, keeping in mind the significance of the blooming of mustard in the fields at this time of the year. Drenched in the festive spirit were the students, who came all dressed up in yellow. Together, they, along with the principal and the staff, worshipped the goddess and sought her blessings for knowledge and wisdom. This was followed with a special arrangement of 'Khichdi Bhog' for the goddess.











### ANNUAL PICNIC 2019

Science and Commerce students along with faculty members undertook their Annual Picnic 2019 on 1st February 2019 and 2nd February 2019 respectively at Ekanto Apon, Bishnupur, Kolkata.









### FRESHERS' PARTY 2019

Fresher's Party in any college is an event which every student eagerly awaits from their time of admission. 10<sup>th</sup> of August 2019 was a memorable day in the life of every fresher of B.Sc. & B.Com. at the college campus. The fresher's day was filled with excitement, joy, music, enthusiasm, laughter and happiness. A host of cultural programme on the theme, Masquerade was organized by the senior students and was attended by 457 students.







# TRAINING CAMP

7-Day Training Camp in association with LabourNet India Pvt. Ltd. on hand-crafted products from eco-friendly raw materials from 16<sup>th</sup> to 23<sup>rd</sup> September, 2019.

- I Activity: Training of rural women on hand-crafted products from eco-friendly raw materials and recyclable waste like old newspaper and jute. Participants were taught to make papier-mâché pen holders and decorative trays, coaster and bowls from jute yarns.
- Beneficiaries: Rural women trainees at LabourNet India Pvt. Ltd., an NGO at their Rishra Centre.
- Volunteers: NSS-volunteers from Departments of FSNM, TCFS & ID.
- Woman trainees were trained on quilling, spray painting, thumb painting and making of Christmas cards.















LabourNet is a social enterprise, based in Bangalore that enables sustainable livelihoods for disadvantaged men, women and youth in urban and rural areas. With over 3600 partners, they have 598 schools, 143 livelihood centers and expertise in more than 28 sectors with over 60+ geographic clusters in 23 states and 5 union territories of India.

### **BLOOD**DONATION CAMP

#### **Main Campus**

Activity: Blood donation camp in association with West Bengal Voluntary Blood Donor's Forum and NRS Blood Bank on 13<sup>th</sup> November, 2019 where students and staff donated 41 units of blood.

Donors: 41 (36 students & 5 staff members)

Volunteers: NSS-volunteers from Departments of Science.





#### **Satellite Campus**

Activity: In collaboration with Lions Club on  $20^{\rm th}$ November, 2019 where Mr. Meeraj Khalid, IPS, Deputy Commissioner, South was the Chief Guest.

Donors: 70



# EYE CHECK-UP

#### CAMP-1

Activity: Eye check-up camp in association with Susrut Eye Foundation & Research Centre on 14th January, 2020.

Beneficiaries: 151 students and 5 Group-D staff members.

Volunteers: NSS-volunteers from Departments of Science.



Activity: Eye check-up camp in association with Agarwal Eye Hospital, Peerless on 27th January, 2020.

Beneficiaries: 70 students.

Volunteers: NSS-volunteers from Department of Commerce.











"What we see depends mainly on what we look for"

## DENTAL CHECK-UP

#### CAMP-1

Activity: Dental check-up camp in association with Aesthetica Dental Centre on 14<sup>th</sup> January, 2020.

Beneficiaries: 95 students and 14 Group-D staff members.

Volunteers: NSS-volunteers from Departments of Science.

#### CAMP-2

Activity: Dental check-up camp in association with Glitter Dental Clinic on 27th January, 2020.

Beneficiaries: 63 students.

 ${\it Volunteers:}$  NSS-volunteers from Department of Commerce.























# VIRTUAL VOLUNTEERING during the LOCKDOWN

- I Activity: Students devised an innovative strategy to impart social services and conducted a range of activities from 15<sup>th</sup> June to 4<sup>th</sup> July, 2020. The activities included innovative games, fun crafts as well as those based on the academic studies for children from several NGOs who otherwise did not have much access to learning during the current situation from.
- Beneficiaries: 64 numbers of underprivileged children from several NGOs (Parichay-Ek Pehchaan in Sunderbans; Jungle Crows Foundation in Kolkata & Siliguri; Towards Future in Dumdum & Institute of Motivating Self Employment).
- Volunteers: NSS-volunteers from Department of Human Development.





# Celebrating TEACHER'S DAY

- I Activity: Students conducted several activities on 5th September, 2019 at Joypul Nandanik Sikshayatan School for the underprivileged children at Duttapukur, Barasat and complimented the teachers for their hard work. Prof. Singhee delivered an address on antipollution stressing on elimination of single use plastics. A book, Shrestha Upahaar and a recyclable folding bag were gifted to the teachers.
- Beneficiaries: Teachers of Joypul Nandanik Sikshayatan School for the underprivileged children at Duttapukur, Barasat.
- Volunteers: NSS-volunteers from Departments of Science & Commerce.









### FOOD DRIVE

- Activity: Students prepared 80 kgs of khichadi and fed underprivileged people on 30<sup>th</sup> May, 2020
- Beneficiaries: 260 underprivileged people in the following areas Bhawanipur, Lake Market, New Alipore, Behala, Howrah, Phoolbagan, Bangur Avenue, Chinar Park, Dumdum, Jangra, Jessore Road and Kestopur.
- Volunteers: NSS-volunteers from Departments of Commerce & Food Science & Nutrition Management.



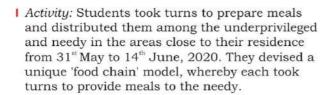
















- I Beneficiaries: Underprivileged and needy in the areas close to their residence (Bangur Avenue, Bhawanipur, Lake Town, Chinar Park, Howrah, New Alipore & Lake Market).
- Volunteers: NSS-volunteers from Department of Commerce.

Students undertook the 'Food Drive' to feed the underprivileged during the Lockdown in Covid-19 pandemic. Students devised a unique 'food chain' model, whereby each took turns to provide meals to the needy.







#### **AWARENESS ON**

### **WATER CONSERVATION**







- I Activity 1: Under Swachta Pakhwada, 2019 of the EBSB Cell, MHRD, Government of India in collaboration with Development Research Communication & Service Centre (DRCSC) Nukkad natak on water conservation was put-up by the students at EJC Duck Junction (Community Centres), one at Remound Road and another at Mathurbabu Lane on 9th September, 2019. Reusable bags were distributed with a purpose to reduce usage of single-use plastics.
- | Beneficiaries: 50 children
- Volunteers: NSS-volunteers & Nature Club members from Departments of Science & Commerce.



#### outreach & extension activities



- Activity 2: An activity on Water Conservation was conducted on 12<sup>th</sup> September, 2019 at Calcutta Rescue NGO via a skit presentation. The kids present at the NGO were between 4 to 20 years old who were taught about the importance of water in life for survival of all living creatures. They were also informed about how we can conserve water and prevent its wasteful usage. An awareness message on avoiding plastics and its harmful impact on environment was also spread among the kids. The volunteers distributed forty eco-friendly reusable bags with a purpose to reduce usage of single-use plastics.
- I Beneficiaries: Children of Calcutta Rescue
- Volunteers: NSS-volunteers from Department of Commerce.







# AWARENESS ON DENGUE

- Activity: Students conveyed the message about Dengue Awareness "Fight the Bite" on 11<sup>th</sup> November, 2019 among the children of Alakendu Bodh Niketan of age group 5-18 years of age with the help of a skit presentation which highlighted the causes, possible breeding sites of dengue mosquitoes, symptoms and some simple remedies to prevent it.
- Beneficiaries: 20-25 children of Alakendu Bodh Niketan
- I Volunteers: NSS Volunteers from Department of Commerce.



# AWARENESS ON COVID-19









- Activity: The activity was conducted for 2 days from 22nd & 23rd June, 2020 in multiple locations around Kolkata, Gorakhpur (Uttar Pradesh) and Golaghat (Assam). The volunteers prepared posters and recorded short awareness videos on how to boost immunity, correct way to wash hands and general safety and hygiene measures. The volunteers adopted various mediums to spread awareness on this pandemic i.e., interacting with people, sharing videos & distributing posters. A WhatsApp group was also created to circulate the posters and videos.
- Beneficiaries: Under privileged sections of the society
- I Volunteers: NSS Volunteers from Department of Commerce



#### PROMOTION OF

# TRADITIONAL CRAFTS

Workshops on Kantha, Pattachitra and Leather Batik were conducted to promote traditional crafts among students from the Department of TCFS. Craftsmen and experts from Purulia, Mednipur and Shantiniketan (WB) conducted these workshops.







#### **AWARENESS ON**

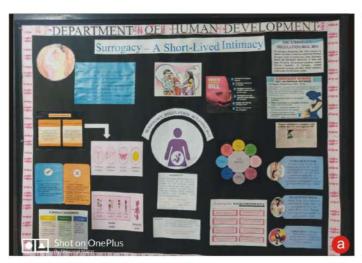
### **CYBER SECURITY**

- I Activity: Talk on Cyber Security by Mr. Rakshit Tandon (Cyber Security Evangelist, Director Executive, Council of Information Security & Cyber Security) was organized on 24<sup>th</sup> September, 2019 at Vidya Mandir Auditorium.
- I Beneficiaries: Students of all departments.
- I Volunteers: NSS-volunteers from Departments of Science, Commerce & Management.



# AWARENESS THROUGH THEME-BASED BULLETIN BOARDS

The Bulletin Board strategically placed near the entrance of the college, displays information of trending academic developments from around the world featuring new ideas articulated in the respective fields of study taught in our respective departments. The displays are highlighted in a monthly/weekly basis, in the form of graphical presentations, pictorial descriptions, media clippings and information briefings.





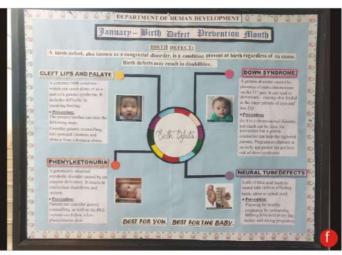




(a) Surrogacy: A Short Lived Intimacy (b) World Day Against Trafficking (c) Muslin: Lost Glory on Woven Air (d) Protection of Children from Sexual Offences (POCSO) (e) The Journey to Age Equality (f) Birth Defects Prevention Month (g) Eating Disorder prevention month (h) International Women's Day (i & j) Textiles Bulletin

#### outreach & extension activities













#### outreach & extension activities



# PARTICIPATORY ANNUAL SPORTS 2020

- Activity: Participation of underprivileged children in the 1<sup>st</sup> Inter-College Annual Sports, Zest 2020 organized by the college on 15<sup>th</sup> January, 2020 at Gitanjali Stadium. Several inter-NGO tract events were specially organized for the children.
- Beneficiaries: Children from NGOs (EkTara, Future Hope, Hope Kolkata Foundation, Calcutta Rescue, Calcutta Social Project, Jungle Crows, Parichay Foundation and Development Research Communication and Services Centre).
- Volunteers: NSS-volunteers from Departments of Science, Commerce & Management.













### **INDEPENDENCE DAY**

#### **CELEBRATION**



73rd Independence Day of the nation was spent with children of 'Parichay' on 15th August, 2019. It was organized as a part of the NSS Cell under the Department of Science of the Institute. The activity was a small initiative to instill patriotism and also a sense of consciousness and responsibility towards creating a clean India from childhood for a brighter and healthier future for children.







Human evolution has two steps from being somebody to being nobody; and from being nobody to being everybody. This knowledge can bring sharing and caring throughout the world.

— Sri Sri Ravi Shankar —



#### **BANNING OF**

### SINGLE-USE PLASTIC

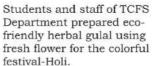
- Activity: Distribution of multi-use foldable fabric bag to all and directions to follow its use in place of plastic bags at the campus w.e.f from 1<sup>st</sup> November, 2019.
- I Beneficiaries: All students and staff of the college.
- Volunteers: NSS-volunteers & Nature Club members from Departments of Science & Commerce.



The Green Club, Jal Shakti distributed 50 jute bags sponsored by Nihari Jute Mills at ILS Hospital Bidhannagar on 31<sup>st</sup> August, 2019. It also organized a presentation on Art of Sustainable Living on 12<sup>th</sup> September, 2019 by Shri Raj Gopinath Das of Iskcon. The Club sponsored 30 saplings at Shree Gandhi Education Welfare Society on 12<sup>th</sup> September, 2019.



# MAKING OF GULAL











# MAKING OF MASKS

Technical staff prepared disposal masks and three layered masks for use by staff of the college.

# MAKING OF SANITIZERS

Students and staff of TCFS and FSNM Departments prepared hand sanitizers and raised Rs 6,275/- through a sale at the college campus on 19th March, 2020.













A completely innovative strategy which provides the students of FSNM department with an academic training opportunity. It allows them to showcase their culinary creations, and put it on sale, within college premises. The proceedings from these sales goes for fund raising of various social causes supported by the college.





#### Theme based Sales:

(a) Ghar Ka Zyaka (b) Fusion Kolkata (c) Preserved Food (d) Bollyfood (e) Frozen Fever













#### Theme based Sales:

- (f) Mickey Mouse Clubhouse (g) Say Cheezzee (h) Illusion (i) Galactic Starveyors (j) Flavors of India (k) Back to School
- JDBI TIMES 2019-2020 | 191

#### SALE OF

### LOST & FOUND ITEMS

A Sale of all Lost & Found Items was organized by the NSS Volunteers (Science) on 18th & 19th February, 2020. Unclaimed items left behind by students and staff over the years were sold for Rs. 10/- each. A total amount of Rs. 1,260/- was raised for social activities.







### RELIEF FOR AMPHAN CYCLONE

1.48 lakhs by 97 faculty and staff members including the Principal who contributed one day's salary amounting. The amount was handed over to Bharat Sevashram Sangha.

32 faculty and staff members contributed one day's salary amounting to a total of 0.40 lakhs towards Amphan cyclone relief. The amount was handed over to Bharat Sevashram Sangha.



Collected Rs. 25,150/- from students and faculty for **Annamrita** (mid-day meals programme of ISKCON) and handed it over to the Monk Balaram Govind Das. on 20<sup>th</sup> August, 2019.



#### COMMUNAL HARMONY CAMPAIGN

Rs. 8,500/- was raised by students through sale of 850 Communal Harmony Campaign stickers for National Foundation, New Delhi on 10<sup>th</sup> February, 2020.

#### **TUBERCULOSIS SEAL**

#### **STICKERS**

Rs. 300/- was collected through sale of 60 Tuberculosis Seal stickers and handed over to Bengal Tuberculosis Association.





### **MEDICAL** CHECK-UP

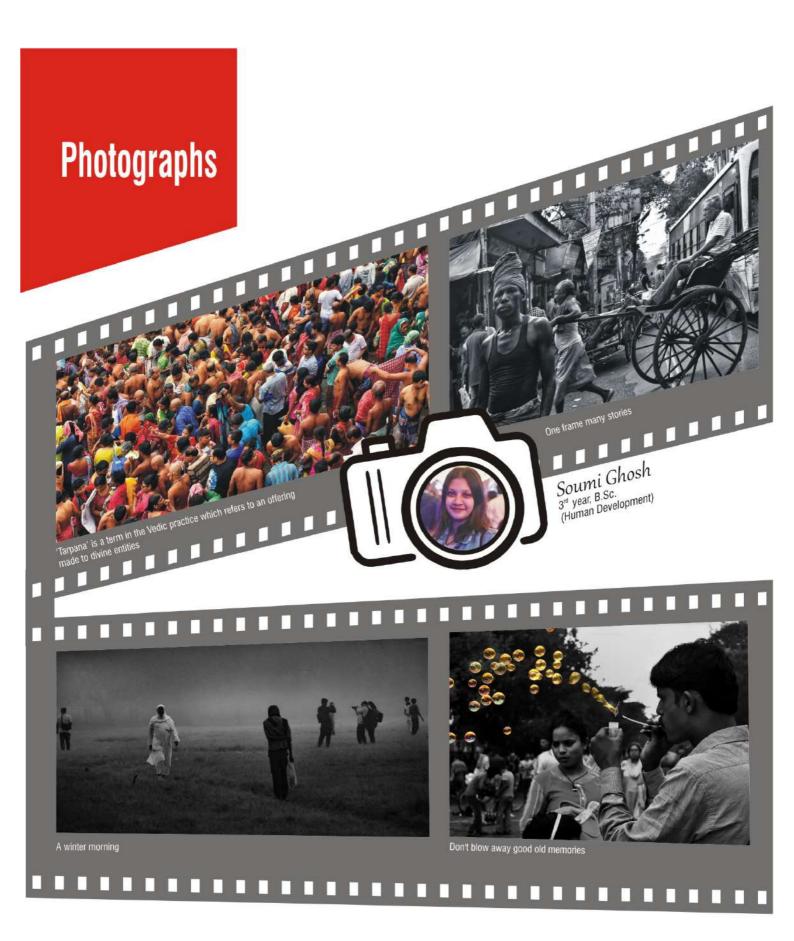
A medical event hosted exclusively for the Group D staff was held in the college. A physician was invited to the college and a general physical check up of all our supporting staff was done to ensure their health and wellbeing.

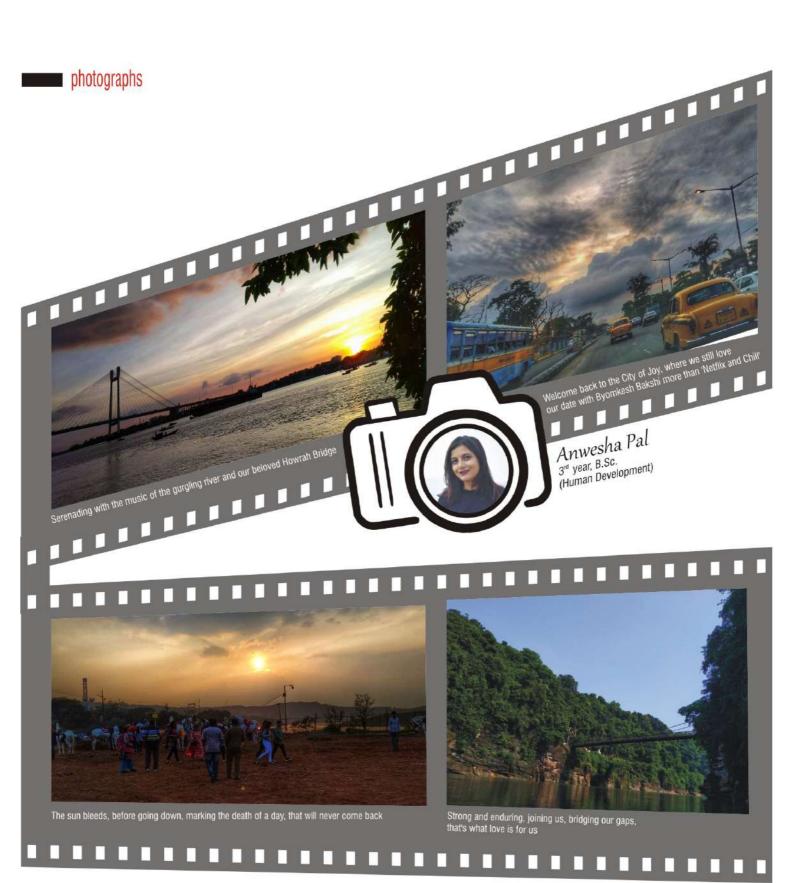
# PARTICIPATION IN MARATHON

Students from the Science & Commerce Departments participated in 5 km & 10 km mini Marathon on the theme, Save the Heart organized by IBS (ICFAI Business School), Kolkata on 1st December, 2019.









#### photographs \_\_\_\_



JDBI TIMES 2019-2020 | 197

(Food Science & Nutrition Management)



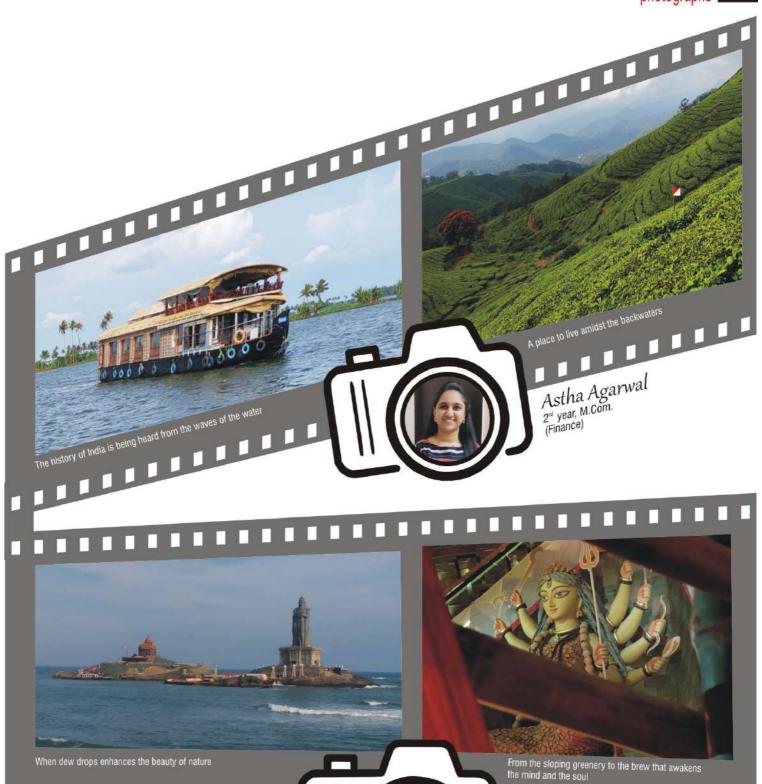
#### photographs \_\_\_\_



JDBI TIMES 2019-2020 | 199



#### photographs \_\_\_\_



JDBI TIMES 2019-2020 | 201

Khushi Jain

2<sup>nd</sup> year, B.Com. (Section-C)

### **Sketches**



Samridhi 2<sup>nd</sup> year, B.Com (Section-E)



Sanskriti Shaw 1st year, B.Com (Section-E)



Samridhi 2<sup>nd</sup> year, B.Com (Section-E)



Raksha Singhi 2<sup>nd</sup> year, B.Sc (Textile Science, Clothing & Fashion Studies)



Sanskriti Shaw 1st year, B.Com (Section-E)



Khushi Jain 2<sup>nd</sup> year, B.Com (Section-C)



Sanskriti Shaw 1st year, B.Com (Section-E)



Nikita Rathi 1st year, B.Sc (Interior Designing)



Shalini Bhattacharya 1st year, M.Com



Samridhi 2<sup>nd</sup> year, B.Com (Section-E)



Kueen Chakraborty 1st year, M.Com



Bhanupriya Verma 2<sup>nd</sup> year, B.Com (Section-C)



Saumi Ghosh 3<sup>rd</sup> year, B.Sc (Human Development)



Srishti Modi 2<sup>nd</sup> year, B.Com (Section-B)



Khushi Joshi 3<sup>rd</sup> year, B.Com (Marketing)



Indrani Das 3<sup>rd</sup> year, B.Sc (Human Development)

JDBI TIMES 2019-2020 | 203



Preet Nathvani 3<sup>rd</sup> year, B.Com (Section-A1)



Pragrya Bhattar 2<sup>nd</sup> year, B.Sc (Textile Science, Clothing & Fashion Studies)



Preet Nathvani 3<sup>rd</sup> year, B.Com (Section-A1)



Preet Nathvani 3<sup>rd</sup> year, B.Com (Section-A1)



Preet Nathvani 3<sup>rd</sup> year, B.Com (Section-A1)



Preet Nathvani 3<sup>rd</sup> year, B.Com (Section-A1)



Samridhi 2<sup>nd</sup> year, B.Com (Section-2E)



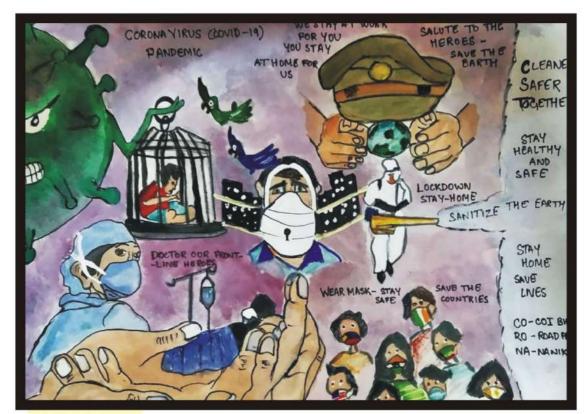
Radhika Agarwal 1st year, B.Com (Section-1C)



Taniya Sarawat 2<sup>nd</sup> year, B.Com (Section-2C)



Shalini Bhattacharya 1st year, M.Com



Ishika Bajaj 1<sup>st</sup> year, B.Com (Section-A)



Parul Kulthia 2<sup>nd</sup> year, B.Com (Section-E)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2018-2020)



(Batch 2018-2020)



(Batch 2018-2020)



(Batch 2019-2020)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2017-2020)



(Batch 2018-2020)



(Batch 2018-2020)





#### **OBITUARY**



Mr. Shivramlal Choudhury
Our staff member
left for his heavenly abode on 16<sup>th</sup> March, 2020



Ms. Shivangi Tolangi Our beloved student of 2<sup>nd</sup> year, B.Com (Hons.) left for heavenly abode on 19<sup>th</sup> February, 2020



Ms. Laveena Jaiswal

Our beloved student of 1st year, B.Com (Hons.)
left for heavenly abode on 5th May, 2020

### With Heartfelt Sympathy

Words however kind can't mend your heartache but those who care and share your loss, wish you **comfort** and **peace** of mind. May you find **strength** in the **love** of **family** and in the **warm embrace** of **friends**.



## Our CAMPUS

JDBI has an impressive campus with all support facilities that cater to the academic and physical requirements of its students including:

Spacious, sound-proof and air-conditioned classrooms equipped with LCD and microphones.

WiFi campus

250-seater convention centre, a special 200-seater lecture room and another audio-visual room for college seminars and special lectures

State-of-the-art computer laboratories with LAN connectivity and 24 hour internet access.

A common area for students' recreation and relaxation.

A new state-of-the art cafeteria providing affordable and hygienic vegetarian food.

A playground (Badminton) and indoor games facility (carom, chess).

In-house health center for first aid equipped with necessary medi-care equipments and manned by a full-time trained nurse.

Complete fire-equipment and electronic fire alarm system.

Security controlled gates and CCTV surveillance to ensure the safety of students and staff.

#### J. D. BIRLA INSTITUTE

Unit of Vidya Mandir Society (Affiliated to Jadavpur University)

**DEPARTMENTS OF SCIENCE & COMMERCE** 

Main Campus & Office: 11 Lower Rawdon Street, Kolkata- 700020 Phone: 24755070, 24767340, Telefax No.: 24543243 • Email: jdbiadmin@jdbikolkata.in