

# bitscan

## Hyderabad Campus





## Felicitation ceremony for the outsourced employees



A thanks giving ceremony was organised for the outsourced employees engaged in housekeeping, gardening, security and other allied services of the campus on the eve of Diwali (on November 14, 2020) to extend our gratitude for their relentless endeavour, hard work and dedication in maintaining the campus neat, clean and beautiful. During the event approximately 250 outsourced personnel were felicitated. Many of them also shared the podium to express their feelings before the audience. The function ended with a thanks giving note by the HR Manager, Mrs. Vasundhari Alluri.

*Cover Page Photo Credits: Dr. Santosh Mahapatra (Department of Humanity and Social Sciences) and Mr. Prashant Inturi*

# Confluence of Academic Ideas, Intellect and Information

## Online Workshops, Seminars & Conferences

**Department of Biological Sciences organized an International Symposium entitled ‘Different shades of Huntington’s disease’.**

The workshop was co-ordinated by Dr. Pragya Komal (BITS-Pilani, Hyd) under the Society of Neurochemistry India, (SNCI), on December 12, 2020. It had more than 100 participants, and some of the eminent speakers included faculty from University of Florida and University of Washington, McGill University and Europe (University of Coimbra), IICT, BHU etc.

The department also organised another international conference titled ‘NMR and Biomolecules’, in honor of late Prof. Atreya, BITS-Pilani, Hyd., on November 8, 2020. It was organized by Dr. Kirtimaan Syal (BITS-Pilani, Hyd) and Prof. Suryaprakash (IISc, Bangalore). More than 500 participants from 15 countries registered for the event. Speakers from top universities such as Harvard Medical School, National Institute of Health, USA, Texas University, Univ. of Michigan, Monash University-Australia, St Jude Children’s Research Hospital, USA, IISc, TIFR etc., presented their work.

**The Department of EEE organized a one-day workshop titled ‘Sensing and Energy Harvesting’ in collaboration with Hiroshima University on August 19, 2020**

Fostering the ongoing collaboration, BITS-Pilani and Hiroshima University have organized a virtual joint workshop in the area of Sensing and Energy Harvesting. Prof. Souvik Bhattacharyya (Vice Chancellor, BITS Pilani) and Prof. Shin-ichi Tate (Executive Vice President, Office of Academic Research and Industry-Academia-Government and Community Collaboration, Hiroshima University) jointly inaugurated the workshop. Prof. Sudhirkumar Barai (Director, BITS Pilani, Pilani Campus) spoke about the ongoing efforts and future pathway for the joint collaboration.

Prof. Keiya Nishida, from Hiroshima University provided an overview of Advance Core for Energetics (ACE) Lab, and its Research Projects on Fuels, Combustion and Internal Combustion Engines. Prof. Yukihiro Matsumura delivered his talk on Biomass treatment using hydrothermal conditions and Prof. Luo Hongliang shared his work on Droplets behaviors of impinging spray by a gasoline hole-type injector.

From BITS-Pilani, Hyderabad Campus Prof. Satish Dubey spoke on IoT enabled Miniaturized Sensors. Prof. Bansari Roy presented on Agricultural residue-based carbonaceous materials for the conversion of agricultural residues to renewable energy sources. Prof. Arshad Javed presented his work on the Microfluidic system for combustion-gas sensing. Prof. Sanket Goel, who hosted the workshop, provided an overall view of the MEMS, Micro fluidics and Nano electronics (MMNE) lab.

The workshop provided an opportunity to the participants to update themselves with current research work in areas like renewable energy, sensing and materials. Further, this has led to building and nurturing prospective collaboration in such cutting-edge cross-disciplinary areas.

**An online workshop on ‘Algorithms and Data Structures’ was hosted by Department of EEE, BITS-Pilani Hyderabad on October 21 and 22, 2020.**

The workshop was conducted by Dr. Prosenjit Gupta from Kolkata over Webex. Dr. Gupta is the founder of Elahe Technologies, Kolkata offering software training and consultancy services. The company has offered niche courses to more than 20 organizations across India.

The workshop was organized as a problem solving session in Algorithms and Data Structures. It covered various problems on Arrays, Strings, Lists, Stacks, Queues, Heaps, Graphs, Trees etc. The emphasis was on design and analysis of efficient algorithms and data structures. Many problems considered were similar to those asked in technical interviews of leading software companies.

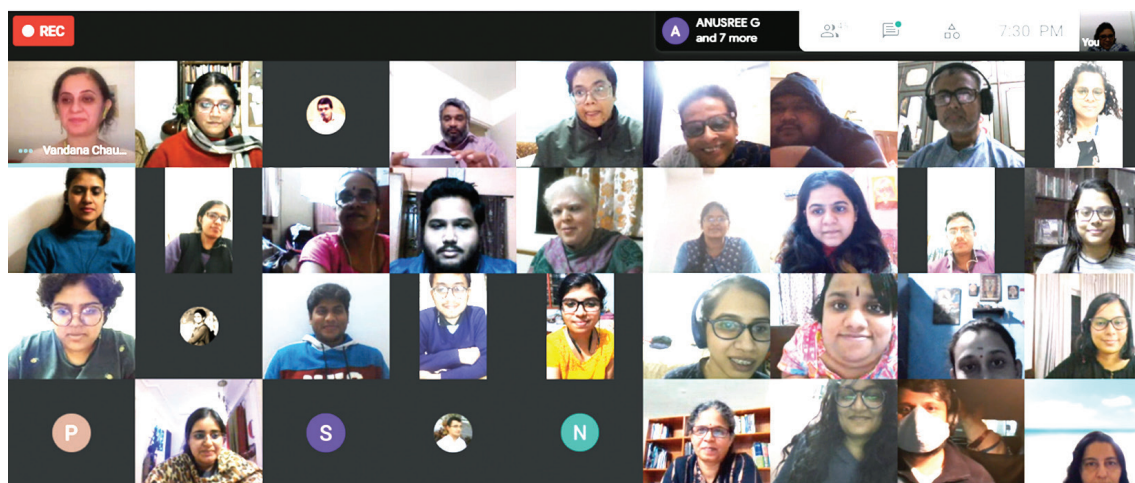
Problems also included classics like Donald Knuth’s ‘The Art of Computer Programming’ or John Bentley’s ‘Programming Pearls’. Alternate solutions were explored for many problems. The sessions were quite interactive. The workshop was attended by over 100 participants.

The Department of EEE also organized a two day national workshop on **Emerging Technologies of Electric Vehicles & Hybrid Electric Vehicles: Challenges in Design, Manufacturing and Control Systems (EV-2020)** (Online Mode) on December 19-20, 2020.



**The Department Humanities and Social Sciences co-organized a national level online workshop with NALSAR, Hyderabad, titled 'Fostering Research in Disability' during December 19-29, 2020.**

A two-day national-level workshop on Disability Studies was conducted online on December 19-20, 2020, co-organized by the Department of Humanities and Social Sciences, BITS-Pilani Hyderabad Campus and the Centre for Disability Studies, NALSAR University of Law Hyderabad. Coordinated by Professors Shilpaa Anand and Amita Dhanda from the two institutions respectively, the workshop was called Fostering Research in Disability and aimed at creating a research community for those working in this field, given that there are very few centres and departments of Disability Studies in India. In continuation of the winter school held in December 2019, this programme was aimed at fostering research in the emergent interdisciplinary field of disability studies, taking as its theme 'Accidents, Emergencies, Disasters and Disabilities'. Over 100 participants, including PhD students and early to mid-career faculty members from universities and research institutes across India, actively participated in discussions during the sessions. Resource persons at the workshop included established scholars in the field such as Professor Lennard Davis from the University of Illinois at Chicago to scholars of Human Rights and Law such as Usha Ramanathan. About 50% of the participants and speakers were persons with disabilities and the whole workshop was supported with Sign Language interpretation.



#### **The Department of Mechanical Engineering organised International Webinars on Recent Innovations on Non-Centrifugal Sugar Production (IWIN 2020)**

IWIN 2020 was organized during July 28 - August 8, 2020, as a knowledge sharing and dissemination activity, and as a part of Sustainable Technologies for Energy Efficiency in Jaggery Industry (STEEJ) project, funded by Royal Academy of Engineering (RAEng), UK. IWIN 2020 was organized by Prof. Morapakala Srinivas, Mechanical Engineering Department, the principal investigator of STEEJ project. STEEJ aimed to arrive at sustainable technological solutions for energy efficiency in the jaggery industry that surmount the drawbacks of the conventional process line using collective expertise of partner academic investigators and the Industry collaborators. The objective of IWIN 2020 was to share the outcomes of the STEEJ and thereby to provide the opportunity for all the stakeholders of Non-Centrifugal Sugar (NCS) industry to enrich their knowledge in the field

of alternate process lines for NCS. The following topics were covered in the event (in the order of processes in the process lines):

- State of the art of NCS industry in India
- 4 E analysis of NCS Industry
- MCE analysis of crushing techniques
- Clarification processes and their sustainability
- Freeze pre concentration and use of solar energy to meet energy needs in NCS industry
- The most optimum juice concentration temperature
- Heat recovery in juice concentration process
- The most sustainable option for evaporation among the current practices
- The most sustainable option for evaporation among the modified practices with HRU
- Demonstration of App NCS, the software for designing the NCS plant with HRU



- Design of NCS powder drying unit
- Presentations, interactions with the NCS Industrialists

IWIN 2020 was attended by around 63 selected participants from the STEEJ partnering universities viz. Herriot watt University, UK; IIT Madras; GITAM Institute besides the other personnel from other universities/institutes and industries with research interests in NCS production. The resources persons for IWIN 2020 included the STEEJ team from partnering universities besides industry experts.

### **Industrial Problems on Machines and Mechanisms-IPRoMM2020**

The 1<sup>st</sup> International and 13<sup>th</sup> National conference on Industrial Problems on Machines and Mechanisms-IPRoMM2020 was held at Birla Institute of Technology and Science, (BITS) Pilani, Hyderabad Campus during December 21-22, 2020, in Virtual mode (using Google Meet), under the aegis of Association of Machines and Mechanisms (AMM), India.

The conference aimed to address issues in the design, manufacture and performance of mechanical and mechatronic elements and systems that are employed in modern machines and devices. The conference highlighted the problems associated with such machinery, their design and development, operation, testing, maintenance and other engineering aspects. The proceedings thus are a compendium of these topics focusing on the engineering aspects in the broad area of Machines and Mechanisms.

A total of 135 papers under 13 tracks were submitted for peer review, out of which 68 papers were selected for presentation. All the accepted and presented papers during the conference will be published as digital proceedings book in Springer. Selected papers will also be considered for publication in reputed Journals.

The Inaugural session was graced by Prof. G. Sundar, Director, BITS Pilani, Hyderabad, Prof. C. Amarnath, President, AMM and the Chief guest of the function was Prof. Krishnamoorthy Sadagopan, founder Vice President of AMM.

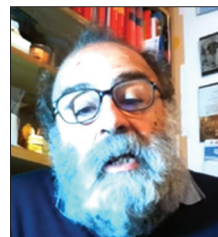
The Keynote speaker of the IPRoMM 2020 was Dr. Madhusudan Raghavan, General Motors, USA. There are 14 other Keynote speakers in six different parallel sessions held each day of the conference. These 14 speakers include,

- Prof. Ettore Pennestrì, Professor in the Department of Enterprise Engineering at University of Rome, Tor Vergata.
- Prof. K Kurien Issac, Senior Professor of Aerospace Engineering at the Indian Institute of Space Science and Technology, Thiruvananthapuram.

- Prof. Varadaraju Dharanipragada, Senior Professor, Gayathri Vidya Parishad, Visakhapatnam.
- Prof. Marco Ceccarelli, Professor University of Roma Tor Vergata, Italy.
- Prof. Mehran Ektesabi, Professor Swinburne University of Technology, Australia.
- Prof. B. K. Raut, Professor and Registrar BITS Pilani.
- Dr. Vijaya Baskar Narayanamurthy, Scientist F Research Centre Imarat, DRDO, Hyderabad.
- Dr. Varma S. Rudraraju, Founder and CEO, Aizant Drug Research Solutions Pvt. Ltd.
- Dr. Swagatika Mohanty, Faculty member, Department of Mechanical Engineering at Vellore Institute of Technology, Alumni of BITS, Pilani, Hyderabad Campus.
- Dr. Phani Kiran Vadavalli, Automotive NVH consultant engineer, Sherbrooke, Canada.
- Mr. P. Kaniappan, Managing Director, WABCO India Limited.
- Mr. Aleksander Koprivc, Managing Director at Zwick Iberica, Spain.
- Mr. Jochen Niederberger, Industry Manager for Biomechanics & Orthopedics, Germany.
- Mr. Muralidhar Ekambaram, CEO/ Director, Adeptus Servo Mechatronics Pvt. Ltd.
- Prof. Y. V. D. Rao, Convener, IPRoMM2020.



Dr. Madhu Raghavan



Prof. Ceccarelli



Dr. Varma Rudraraju



Department of Physics organised a virtual workshop "Compact Stars in the QCD Phase Diagram VIII: The Era of Multi-Messenger Astronomy", August 17-21 2020.

**Compact Stars in the QCD Phase Diagram VIII: The era of multi-messenger Astronomy**

Due to Pandemic, a virtual meeting on Compact Stars and QCD2020 was held

Originally  
**25 May – 5 June 2020**  
ICTS, Bengaluru

**Virtual Meeting on Compact Stars and QCD 2020 (17 August 2020 to 21 August 2020)**

Opening remarks at 09:00 am  
History of QCD20 by Prof. S. Banik (opened at 09:15 am)

Date & Time	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00
17th August	-	Drankar Bhattacharya	Jim Lattimer	Core Miller	-	-
18th August	-	Drankar Bhattacharya	Ranjan Kuj	Rodrigo Nereim	-	-
19th August	Jocelyn Read	Drankar Bhattacharya	Dilbari Chatterjee	-	-	-
20th August	-	Paul Lasly	Thomas Kiehn	Massimo Mannari	-	-
21st August	Natalia Lebedeva	-	Prashanth Jaikumar	Alexis Vuorinen	-	-

All times are Indian Standard Time (IST) that is UTC + 5.5 hours

**ORGANIZERS**  
Manjari Bagchi (IMSc),  
Sarmistha Banik (BITS-Pilani),  
Sudip Bhattacharyya (TIFR),  
Prashanth Jaikumar  
(California State University),  
V. Ravindran (IMSc)  
and  
Sayantan Sharma (IMSc)

<https://www.icts.res.in/program/csqcd2020>

**GW and NICER Constraints on Neutron Stars**

J. M. Lattimer  
Department of Physics & Astronomy  
STONY BROOK UNIVERSITY

Virtual Meeting on Compact Stars and QCD 2020  
ICTS, Tata Institute for Fundamental Research, 17-21 August 2020

Prof. Sarmistha Banik along with experts from reputed institutes of India and abroad organised a virtual event "Compact Stars in the QCD Phase Diagram VIII: The Era of Multi-Messenger Astronomy" during August 17-21, 2020. <https://www.icts.res.in/program/csqcd2020>

Grant was initially sanctioned for hosting the International biennial event Compact Stars in the QCD phase diagram (CSQCD) at ICTS TIFR, Bengaluru during May-June 2020. The program was planned to cover pedagogical lectures for graduate students and postdoctoral researchers, and research talks over a duration of two weeks, which was eventually reduced to research talks by experts from all over the world. The talks covered recent topics on neutron stars, both theoretical and observational. The discussion sessions were particularly stimulating, which initiated a couple of international collaborations, including one by Prof. S. Banik.

## Training Sessions Organized

### Electrical Sciences

- Training Session on Miniaturized Devices - Organized under a sponsored project by Sweccha and International Exchange Alumni, Department of State, USA. Hosted by Prof. Sanket Goel 1 day, July 23, 2020
- Next Generation Smart Generation - Organized under a sponsored project by Sweccha and International Exchange Alumni, Department of State, USA. Hosted by Prof. Sanket Goel on July 31, 2020

## Hyderabadi E- Rickshaw developed by students of EEE in collaboration with Green Cell

Students of BITS Pilani, Hyderabad Campus have developed an Electric Rickshaw, which they wish to call Hyderabadi E-Rickshaw (HE-Rickshaw), in collaboration with a Hyderabad-based Company, Green Cell. The rickshaw is run on a Lithium-ion battery pack and gives a mileage of 60KM on a single charge. It is expected to provide first/last mile connectivity in cities, became an alternate transport option and a source of livelihood in towns/rural areas as well as help combat climate change.

Speaking at the launching ceremony of HE-Rickshaw at BITS Pilani, Hyderabad Campus, the Director Prof. G. Sundar said, 'BITS Pilani is committed to combating the climate change through R&D and HE-Rickshaw is but one small step in that direction'. Mr. Phaneendra of Green Cell Energy, Hyderabad, said his company is looking for a long-term collaboration with BITS Pilani in e-Vehicle segment.





## Online Paper Presentations in International Conferences by Faculty

### Department of Biological Sciences

- P. Sankar Ganesh, N. Anand, presented a paper titled 'Physicochemical characterization of leachate emanating from young and legacy municipal solid waste landfills,' International E-Conference on Frontiers in Industrial Biotechnology (ICFIBT2020), Tamil Nadu.
- Gireesha Mohannath, Neha Priyadarshini, Gargi Prasad S. and Muralikrishna Ramgopal presented a paper titled 'Bioinformatic analysis of 45S ribosomal RNA (rRNA) genes from plants to humans: Inbix-2020,' International Conference on Bioinformatics, December 4-5, 2020.
- Jayati Ray Dutta, Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan: Naked-eye detection of Hepatitis C viral RNA from clinical samples - presented a paper titled 'Virtual conference in CCMB, HySci-2020,' December 17-18, 2020, India.
- Pragya Komal\* (Corresponding author), Manjari SKV, Sanjana Srinivas, Sathwik P G: presented a paper titled 'Vitamin D3 supplement rescues motor disability in 3-nitropropionic acid induced mouse model of Huntington's disease,' First Annual Meeting of Georgian Center for Neuroscience Research (GCNR-2020), Tbilisi, Georgia.
- Shuvadeep Maity, DisiAn, Justin Rendleman, Dylan Iannitelli, Joseph Espiritu, Victoria Paradise, Kapil Ramachandran, Esteban Mazzoni, Christine Vogel. Poster presentation in 'Neurodegenerative Diseases: Biology & Therapeutics Virtual Meeting,' December 2-4, 2020, CSHL, USA.
- K. Naga Mohan, Sonal Saxena, Sumana Choudhury: Dysregulation of genes associated with neuro-degenerative disorders in neurons over expressing DNMT1. Presented a paper titled 'Cold Spring Harbor Symposium on Neuro-degenerative Diseases,' Virtual, December 2-4, 2020.

### Department of Chemistry

- N. Rajesh, delivered an invited talk on 'Realizing the significance of biopolymer composites and nano carbon adsorbents for toxic metals' at First International Online Conference on Blends, Composites, Bio-Composites and Nanocomposites (ICNC-2020), Organized by MG University Kerala and Siberian Federal University, Russia.
- K. Sumithra delivered an invited talk 'Adsorption and sensing of some pollutant gases on chemically modified graphene surfaces', BITS Pilani Global meet on Computational Modeling and Simulation: Recent

innovations, challenges, and perspective;. October 30, 2020.

- Chanchal Chakraborty delivered the invited lecture in SAIS Symposium 2020, at Indian Association for the Cultivation of Science, Kolkata on December 4, 2020.
- Ramakrishnan Ganesan presented an invited talk on 'Solid State Synthesis of Photocatalytically Active Functional Nanocomposites' in the SPARC sponsored International Symposium organized by Defense Institute of Advanced Technology (DIAT), Pune on September 17, 2020.

### Department of Civil Engineering

- Ansuman Panda, Manish Mehtha, Sammed Magdum and P. N. Rao presented a paper titled 'Sloshing Effect of Water in Elevated Water Tank on a G+2 Building', ISSC 2020, IIT, Hyderabad, India.
- Venkateswarlu, T., Abdul Hannan, Maitreyee Talnikar, J. Anmala presented a paper titled 'Significance of Classification And Regression Tree (CART) models in the prediction of river water quality', in XXV HYDRO 2020 International Conference (Hydraulics, Water Resources & Coastal Engineering) at N.I.T Rourkela, December 16-18, 2020.
- Sai Kubair, Waim Akshay Ravindra, Sridhar Raju & Sham Ravindranath, presented a paper titled 'Laboratory evaluation of gap graded rubber modified warm mix asphalt', in the International Journal of Pavement Research and Technology volume 13, pages 558-569 (2020)
- C. Parimi; S. P. Challagulla presented a paper titled 'Seismic Response of Structures with Stacked and Sliding Live Loads', in the 17<sup>th</sup> WCEE, 2020, Sendai, Japan, 2020.
- Saiteja Sistla, S. C. Mohan, presented a paper titled 'Numerical Modelling of Bonded and Unbonded Flax Fiber Reinforced Elastomeric Isolator and their Application to RC Building', ICE3MT2020 Conference, October 09-10, 2020.
- Shekhar, S., Ghosh, J. presented a paper titled 'Metamodeling strategies towards seismic life-cycle cost assessment of highway bridges', Accepted in 7<sup>th</sup> International Symposium on Life-Cycle Civil Engineering (IALCCE 2020), Shanghai, China, October 27-30, 2020.
- Mazhar, S., Guha Ray, A., Garg, A. (2021), presented a paper titled 'Performance Evaluation of fiber-reinforced expansive subgrade soil stabilised with lime, cement, and alkali-activated binder: A comparative study', 6<sup>th</sup> GeoChina International Conference: Civil and Transportation Infrastructures, Nanchang, China, July 19-21, 2021.



- Patil M., Majumdar B B, and Sahu PK presented a paper titled 'Evaluating Pedestrian Crash Prone Locations to Formulate Policy Interventions towards Improved Safety and Walk ability at Sidewalks and Crosswalks Transportation Research Record in 100<sup>th</sup>, Annual Meeting of Transportation Research Board, Washington DC, USA, held between January 25-29, 2021

### Department of Computer Science

- Mrunal Dhaygude and Dipanjan Chakraborty presented a paper titled 'Rethinking Design of Digital Platforms for Emergent Users: Findings from a Study with Rural Indian Farmers.' Human Computer Interaction 2020, Association for Computing Machinery, India, November 5, 2020.
- Suvadip Batabyal and OzgurErcetin presented a paper titled 'Optimal Buffering for High Quality Video Streaming in D2D Underlay Networks' in IEEE WCNC. Seoul, Korea, May 27, 2020

### Department of Economics and Finance

- Shreya Biswas presented a paper titled 'Women inheritance and women empowerment: The impact of Hindu Succession Act in India' held during April 22-25, 2020 at the Population Association of America Annual Conference, Washington DC, USA held virtually.
- Mini P. Thomas and Radhika Gupta presented a paper titled 'Role of Urban Cooperative Banks in Financial inclusion: An Exploratory Study of Two Districts in India' in the VIII International Conference on Applied Research in Economics, organised by Higher School of Economics Russia, September 21, 2020.

### Department of Humanities and Social Sciences

- Anhiti Patnaik, presented a paper titled 'Trials of Wilde and Manto,' The Institute for World Literature, IWL Harvard University, July 24, 2020.
- Lavanya Suresh, presented a paper titled 'The Search for Alternative Irrigation Practices and the Politics of Water and Scarcity', Third biennial conference of the Political Ecology Network (POLLEN) organized by the Institute of Development Studies, University of Sussex, UK from September 22-25, 2020.
- Pranesh Bhargava, presented a paper in English Literature Summit - 2020, titled, 'Accuracy in Reporting Clinical Tests in Texts with Disability: Analyses of 'Flowers for Algernon' and 'My Name is Brain Brian' December 12, 2020.

### Department of Mathematics

- Manish Kumar presented a paper through Microsoft team on 'A review on medical encryption techniques' in the 2<sup>nd</sup> International Conference on Machine Learning

and Intelligent Systems (MLIS 2020) in Seoul, Korea, during October 25-28, 2020,

- Rupanshu Soi, Nischay Ram Mamidi, Elliott Slaughter, Kumar Prasun, Anil Nemili and S. M. Deshpande, presented a paper titled 'An implicitly parallel meshfree solver in Regent in 2020 IEEE/ACM' 3<sup>rd</sup> Annual Parallel Applications Workshop: Alternatives to MPI+X (PAW-ATM), Virtual Event, November 09-19, 2020.
- Koley, S., Panduranga, K., presented a paper titled 'Energy balance relations for flow through thick porous structures', 43<sup>rd</sup> International Conference on Boundary Elements and other Mesh Reduction Methods, Embry-Riddle Aeronautical University, Daytona, USA, December 07-09, 2020.
- B. Mishra delivered an invited talk titled, 'Anisotropic cosmological models under  $f(R,T)$  theory of gravity', at Progress on Old and New Themes in Cosmology (PONT-2020), Avignon, France during December 7-11, 2020.
- P. K. Sahoo attended the IWARA 2020 Video Conference-9<sup>th</sup> International workshop on Astronomy and Relativistic Astrophysics at Mexico from September 6-12, 2020 and gave an invited talk on 'Energy Conditions in Non-minimally Coupled  $f(R,T)$  Gravity'.

### Department of Pharmacy

- Nirmal J., presented a paper titled 'Biomaterials role in achieving optimum therapeutics for the back of the eye diseases.' Hiroshima University, Japan and BITS Pilani, Hyderabad Campus, 2<sup>nd</sup> Joint Workshop, November 20, 2020.

### Department of Physics

- Swastik Bhattacharya: 31<sup>st</sup> IAGRG Meet, IIT Gandhinagar, December 2020.
- S. Banik: Invited talk in Advances in Astroparticle Physics and Cosmology (AAPCOS)-2020 at Saha Institute of Nuclear Physics, Kolkata, January 2020.
- V. Satya Narayana Murthy has given an invited talk on 'Nanoscience in Nature' in a five-day faculty development programme organized by Department of Physics, Dayananda Sagar Academy of Technology and Management, Bangalore during November 2- 6, 2020.
- Meenakshi : Invited Distinguished Speaker in the 'International conference on Physics and Allied Sciences' organized by Karnataka Science and Technology Academy, Department of Science and Technology, Government of Karnataka, March 11-13, 2020.
- Swastik Bhattacharya presented a paper titled 'Microscopic Model building for Black Hole Membranes from constraints of Symmetry' in 31<sup>st</sup> IAGRG Meet, IIT Gandhinagar, December 20, 2020.

# Faculty Awards / Achievements

## Biological Sciences

### Awards & Achievements:

- Outstanding Potential for Excellence in Research & Academics (OPERA) Award, BITS, Pilani (Nishith Gupta).
- Well come Trust – DBT (India Alliance) Senior Fellowship (Nishith Gupta).
- Selected as permanent member of AML, India (Kirtimaan Syal).
- Recipient of Early Career Award; International Brain Research Organization (IBRO), September 2020 (Pragya Komal).
- Outstanding Potential for Excellence in Research & Academics (OPERA) Award, BITS, Pilani (Shuvadeep Maity).
- Ruchi Jain Dey was awarded Global Scholarship Award to attend the Keystone Symposia eSymposia meeting eSymposia. Tuberculosis: Science Aimed at Ending the Epidemic, from December 2-4, 2020.

### Patents

- Ruchi Jain Dey; 'Recombinant Multivalent Vaccine'. Provisional Patent submitted to Indian Patent Office, patent application number- 202011030636; July 18, 2020. Applicant Institute: BITS Pilani. (Filed).

## Chemistry

- Patent Published on November 27, 2020 by Jayanty Subbalakshmi, Principal Inventor, Title: Novel Xanthene amides and processes for preparing the same, Birla Institute of Technology and Science-Pilani, Hyderabad campus. Co-Inventors: Himabindu Battula, Balaram Ghosh, Yamini Bobde. Application number, 201911020063
- Patent Published on July 24, 2020 by Jayanty Subbalakshmi, Principal Inventor, Title: Compounds for use as anti-cancer agents and a process for synthesizing the same, Birla Institute of Technology and Science-Pilani, Hyderabad campus. Co-Inventors: Anwar Hussaiani SD, Balaram Ghosh, Yamini Bobde. Application number, 201941002679
- Subit K. Saha has been the Chairperson in a technical session under Physical Chemistry Section in online 57<sup>th</sup> Annual Convention of Chemists, 2020 & International

Conference on Recent Trends in Chemical Sciences during December 26-29, 2020 organized by Indian Chemical Society, Kolkata.

- Sustainable Chemistry Series: Volume 5 Solution Combustion Synthesis of Nanostructured Solid Catalysts for Sustainable Chemistry; Chapter: Solution combustion synthesis related to photocatalytic reactions; Sounak Roy, S. Challagulla, World Scientific (2020); DOI: <https://doi.org/10.1142/q0257> ISBN: 978-1-78634-869-2 (Hard Cover)

## Civil

- K. Srinivas Raju was appointed as editor, Journal of water and climate change, IWA with effect from July 1, 2020 for a period of three years ([https://iwaponline.com/jwcc/pages/Editorial\\_Board](https://iwaponline.com/jwcc/pages/Editorial_Board)).
- Arkamitra Kar was selected as a member of the RILEM TC MPA. This committee is intended to develop working standards for determining the mechanical behavior of alkali activated concrete.
- Shivang Shekhar has received the 'Excellence in Ph.D. Research Award' (Best Thesis Award) in the 58<sup>th</sup> Convocation of IIT Bombay

## Economics and Finance

- Sunny Kumar Singh has joined as an Associate Editor to the journal titled 'SN Business & Economics', Springer Journal.

## Electrical Sciences

- Sayan Kanungo received Trusted Reviewer for IOP awarded to Dr. Sayan Kanungo by Institute of Physics.
- Parikshit Sahatiya received the Best Poster Award WS2 QD (n) decorated on SnS (p) as Localized Hetero junctions for Highly Responsive Flexible Broadband Photodetector, ICEE, IIT Delhi (Virtual), Dec 2020
- Parikshit Sahatiya received Best Project Award, Anveshan Fellowship 2020, Analog Devices
- Sanket Goel selected as Associate Editor, Applied Nanoscience (Springer-Nature).



## Mathematics

- B. Mishra has been selected as a fellow of Institute of Mathematics and Applications, United Kingdom.
- P. K. Sahoo has been selected as a Fellow of Institute of Mathematics & its Applications (FIMA), London.
- P. K. Sahoo has received Reviewer excellence award 2019 by Indian Academy of Sciences, India.
- Manish Kumar has received Young Scientist Award in the 9<sup>th</sup> International Scientist Awards on Engineering, Science, and Medicine, which was held on September 12-13, 2020 in Trichy, India, by VDGOD Professional Association, India.

## Pharmacy

- Yogeeswari P., Jury for the Global Student Entrepreneurship Award 2020, one of the biggest student startup competitions across the globe.
- Yogeeswari P., Ranked among 1% Top Scientists from India in the area of Pharmacy and Pharmacology as reported by Stanford University.
- Sriram D., Ranked among 2% Top Scientists from India in the area of Pharmacy and Pharmacology as reported by Stanford University.
- Swati Biswas., Ranked among 2% Top Scientists from India in the area of Pharmacy and Pharmacology as reported by Stanford University.

- Yogeeswari P., Jury member for SITARE - GYTI 2021, a national award given to student innovators across the country by the honorable President of India, on Managing Work Life Balance : Story of A Woman Entrepreneur's Life.
- Sushant Omprakash Dube, Ajay Kumar Singh, Akash Chaurasiya, Chiranjeev Singh, Suprit Dilip Saoji, Pharmaceutical Combinations of Ibrutinib, Application No. IN202041053973, Application Submission Date: December 11, 2020. Patent filed.
- Yogeeswari, P., Sriram, D., Madhubabu, B., Brahmam, M., Indian Patent Application No. 2945/DEL/2014 (15/10/2014): A Compound for treating inflammatory neuropathic pain and cancer. Patent Evaluation completed in November, 2020.

## Physics

- Kannan Ramaswamy Nominated for INSA Best Science Teacher award
- **Patent:** Srinivasa Rao Vutla, Srinivasa Prakash Regalla, Kannan Ramaswamy, Hemair Systems Private Limited, 'Sustainable Microelectromechanical Systems (MEMS) Cleanroom', Provisional Indian Patent filed, Ref/App.No.: 201941041293/TEMP/E-1/43749/2019-CHE, Dated:11/OCT/2019.

# Student Awards / Achievements

## Chemistry

- Ms. Susmita Roy received the ACS Best Oral Presentation Award in SAIS Symposium 2020, at Indian Association for the Cultivation of Science, Kolkata.
- Mr. Thirupathi Reddy Penjarla has won Best Poster Award in Recent Advances in Organic, Medicinal and Biological Chemistry", July 8-9, 2020, VIT- Chennai.
- Freshmen orientation for 2020 chemistry students was held on December 4, 2020 organized by the members of Alchemy.

## Computer Science

- K. Pranath Reddy (2016B5A30572H) won Swift Student Challenge Award during Apple WWDC 2020.
- Sankalp K. G. (2016B2A30683H) was honoured with Indo-Asian William Gilbert Best Scholar Award in Electrical and

Electronics Engineering in the International Webinar on UN Goals – Quality Education – The Future, International Academic Excellence Awards 2020 organized by IMRF, December 15, 2020.

- Sankalp K. G. (2016B2A30683H) was part of team which was the finalist in COVID-19 Innovation challenge and he also received Certificate of Appreciation for top 300 ideas in India for developing prototype of UV embedded glove for sterilization of objects at Hack the crisis India Hackathon organized by Government of India and Garage 48.
- Rishabh Singh (2017B4A81602H), K. Pranath Reddy (2016B5A30572H) and Manan Gupta (2017A3TS0488H) were selected for Google Summer of Code (GSoC) 2020
- Sargunpreet Kohli (2018AAP50395H) and Sanghita Chakraborty (2018A8PS0876H) were selected for Google STEP Internship.

## Economics and Finance

- Ms. Shreeya Jain, M.Sc. (Eco) 2016-21 batch, secured an off-campus Thesis at the University of Arizona, USA in the field of Computer Vision and Socially Intelligent AI.
- Mr. Tarun Garg, M.Sc. (Eco) 2016-21 batch, secured a yearlong undergraduate thesis at Artificial Intelligence Institute, University of South Carolina.
- Ms. Aastha Dave, M.Sc. (Eco) 2017-22 batch, published her research work in 2D Nanomaterial Applications in Electronics in IEEE Consumer Electronics Magazine for which she was granted second authorship. She was also amongst 57 students across India to be selected as a Future Research Talent Scholar to pursue a summer research internship at Australian National University.
- Mr. Pratik Kamdar, M.Sc. (Eco) 2017-22 batch secured an internship at the Department of Economic Affairs, Ministry of Finance, Government of India.
- Mr. Pranay Khatwani, M.Sc. (Eco) 2017-22 batch was selected as a member of Harvard Business Review Ascend Select, an invite-only and an exclusive community of aspiring leaders, handpicked by HBR Ascend.
- Mr. Vikas Sheoran, M.Sc. (Eco) 2018-23 batch, worked on the problem of age estimation and gender prediction and achieved state of the art results on UTKFace dataset using deep learning. These approaches were published in the 5<sup>th</sup> IAPR International Conference on Computer Vision & Image Processing, IIIT Allahabad in collaboration with another student from BPGC.
- Ms. Jui Pradhan, M.Sc. (Eco) 2018- completed 3 months of contributions to open source projects in the Google Summer of Code Programme (May-August). She was also selected as a student Delegate in the ECCV 2020 (August).

- Ms. Vibha Narendra, Mr Sailesh Duddupudi, Ms. Hitaishi Desai M.Sc. (Eco) 2019-24 batch, were awarded second place in the Goodera Global Student Challenge 2020, and were part of the only undergraduate team that reached the finals.

## Mathematics

- Kottala Panduranga, Ph.D Scholar, received the Best Poster Presentation Award from NCASM-2020, a conference organized by Chitkara University, Punjab during September 24-25, 2020.

## Pharmacy

- Jahnvi Dharwadkar – Special Mention, Human Rights Council, Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad.
- Royal Tabitha Grace – Khorana Program for Scholars, WINstep Forward (WSF), Indo-U.S. Science Technology Forum (IUSSTF) and The Department of Biotechnology (DBT) of the Government of India
- Samhitha Sai Veda Koduganti – Tata Trusts Medical and Healthcare Scholarship, Tata Education and Development Trust.
- Sneha Das – Tata Trusts Medical and Healthcare Scholarship, Tata Education and Development Trust.
- Sneha Das – Merit Scholarship, BITS Pilani, Hyderabad Campus.
- M. S. K. Srujana – Tata Trusts Medical and Healthcare Scholarship, Tata Education and Development Trust.
- Rohit Bisht (Postdoc Fellow), Emerging Researcher Award (Toxicology and Pharmaceutical Sciences) 2020, 6<sup>th</sup> Annual Millennium Impact Award-2020, Shri Param Hans Education and Research Foundation Trust, New Delhi, India.



## Sanctioned Projects During Jul-Dec 2020

Sl. No.	Title of the Project	Name of the Principal Investigator	Department	Co-PI	Funding Agency	Amount (Rs)	Sanctioned date
1	Efficient prediction strategy of COVID-19 based on pandemic Data and Immunoinformatics, Integrated on Artificial Intelligence (AI) platform.	Dr. Debashree Bandopadhyay	Biological Sciences		DST-MATRCS COVID-19 Special call	550000	July 09, 2020
2	Development of database for Reactive Oxygen species (ROS) towards understanding Mechanism control and Therapeutics against Mitochondrial Dysfunction.	Dr. Debashree Bandopadhyay	Biological Sciences		CSIR-HRDG	854667	July 17, 2020
3	Role of m6A Reversible RNA Methylation in Oral Cancer.	Dr. Piyush Khandelia	Biological Sciences	Dr. Vivek Sharma	CSIR-HRDG	2250000	July 17, 2020
4	2D Nanomaterials based Flexible Resistive Memory (Memristor).	Dr. Parikshit Sahatiya	EEE		Redpine Signals, India Pvt Ltd	8,14,400	July 01, 2020
5	28S Ribosomal RNA capture assay for the Sensitive Detection of Plasmosiumvivax.	Dr. Sanket Goel along with (jointly to Pilani, Goa)	EEE		ICMR	1141280	Aug 18, 2020
6	Mitigation Strategy to counter top-down cracking due to non uniform contact stresses in flexible pavements.	Dr. Sridhar Raju	Civil Engineering	Dr. Chandu Parimi	NHAI FUNDED	2650000	July 03, 2020
7	Urban Low-Income Households' Savings: Understanding Issues and Challenges in Indian Context.	Dr. Rishi Kumar	Economics and Finance		Dvara Research	1405000	July 21, 2020
8	Socio-Economic Impacts of Cyclones and the Coping Strategies of the Local Communities in Odisha, India with a Special Focus on Women.	Dr. Archana Srivastava	Economics and Finance	Dr. Rishi Kumar and Prof. Dolagobinda Pradha	Shastri Institutional Collaborative Research Grant (SICRG)	1000000	Nov 14, 2020
9	Topical Nanomicelles eye drop for delivering Antifungal Drug to treat Corneal Infection.	Dr. Nirmal J	Pharmacy		Parenteral Drug Association (PDA)	2000000	July 28, 2020
10	In-vivo experiments pertaining to Pharmacokinetic studies on new conjugates	Dr. A. Sajeli Begum	Pharmacy		WIPRO Pvt. Ltd-Small Industry Project	50,000	Nov 11, 2020
11	Evaluation of Novel Transdermal Device for Controlled Delivery of a Drug.	Dr. Punna Rao Ravi	Pharmacy		Medicen Devise Technologies Pvt Ltd	1521048	Nov 14, 2020
12	Development and application of a mesh free adjoint approach for Aerodynamics Shape Optimization.	Dr. Anil N.	Mathematics	Dr. N. Kishore Kumar	DRDO-ARDB	1781934	Sep 08, 2020
13	Socio-economic determinants of household investment portfolio in India.	Priya Rampal, Sharda University	Economics and Finance	Dr. Shreya Biswas	Dvara Research	270000	July 23, 2020
14	Institutional Changes for Rural Innovation: The Civic Space and the State in India, the 1980's through 2010's.	Keshab Das (GIDR, Ahmedabad) and Rajeswari S. Raina (SNU)	Humanities and Social Sciences	Dr. Lavanya Suresh	Ford Foundation	6840000	Sep 01, 2020
15	Glucocorticoid Receptor (GR)-targeted liposomal nano-platform for drug sensitization, EMT-reversal toward effective treatment of aggressive oral cancer.	Dr. Kumar Pranav Narayan	Biological Sciences	Dr. Rajkumar Banerjee	DBT	3800000	Sep 02, 2020
16	Water Soluble and Flexible Quantum 2D Materials based devices for Personal Healthcare Monitoring.	Dr. Parikshit Sahatiya	EEE	NA	DST SERB SRG	2743000	Oct 08, 2020
17	A Novel 2:1 Multiplexer based approach to Implement Ternary Logic Circuits	Dr. Chetan Kumar Vudadha	EEE	NA	DST SERB SRG	909000	Oct 08, 2020

Sl. No.	Title of the Project	Name of the Principal Investigator	Department	Co-PI	Funding Agency	Amount (Rs)	Sanctioned date
18	Investigation of Van der Waals Hetero-structures of Transition Metal Di-Chalcogenides (MX <sub>2</sub> ) and Tin Di-Chalcogenides (SnX <sub>2</sub> ) for Broad-Band Photo-Detector Design.	Dr. Sayan Kanungo	EEE	NA	DST SERB SRG	1100000	Oct 08, 2020
19	Fine Selmer groups and class number divisibility of ideal class groups: A look into Rank-Computation of Elliptic Curves.	Dr. Debopam Chakraborty	Mathematics	NA	DST SERB SRG	1120000	Oct 06, 2020
20	Security Analysis of Stream Cipher Salsa, ChaCha and some lightweight Ciphers	Dr. Sabyasachi Dey	Mathematics	NA	DST SERB SRG	988000	Oct 06, 2020
21	Quantum back-action noise through Reservoir Engineering and Hybrid Quantum Systems.	Dr. Subrahmanya Bhima Sankar Davuluri	Physics	NA	DST SERB SRG	1165490	Oct 10, 2020
22	Development of Endothermic Fuel for Supersonic Vehicle Applications	Dr. Srikanta Dinda	Chemical		DST SERB CRG	2150000	Dec 04, 2020
23	Synthesis of Novel Coumarin-based lignans targeting Pro-Inflammatory Cytokines for the treatment of Chronic Kidney Diseases.	Dr. A Sajeli Begum	Pharmacy	Dr. Onkar P. Kulkarni	DST SERB CRG	3340000	Dec 18, 2020
24	Therapeutic Potential of Novel Dual Receptor Acting Designer Peptide NPA7 in Hypertension and associated Renal Complications.	Dr. Arti Dhar	Pharmacy	NA	DST SERB CRG	3200000	Dec 18, 2020
25	Synthesis and development of Pharmaceuticals (Code: CXL-001)	Dr. Tanmay Chatterjee	Chemistry		Chancuex Labs LLP, Hyd	1007000	Dec 09, 2020
26	Stem Cell Models to study the interplay between DNMTs and HDACs in Schizophrenia.	Dr. K. N. Mohan	Biological Sciences		DST SERB CRG	3250000	Dec 18, 2020
27	Weak Galerkin method for Parabolic Problems.	Dr. Jhuma Sen Gupta	Mathematics		DST SERB CRG	2280696	Dec 17, 2020
28	To delineate domain-specific functions of Histone Deacetylase 6 (HDA6) in Gene Regulation and Genomic Instability and- to develop a Novel Non-Transgenic Epigenetic Mutagenesis Tool for Plant Improvement via HDAC Modulation".	Dr. Gireesha T M	Biological Sciences		DST SERB CRG	4300000	Dec 16, 2020
29	Enhanced Strength-to-weight Ratio INCONEL-718 Alloy Structures made by Additive Manufacturing for Aerospace Applications.	Dr. Srinivasa Prakash Regalla	Mechanical	Dr. Kurra Suresh	DST SERB CRG	2476800	Dec 17, 2020
30	Enhancement of Mechanical Properties and Forming Behavior of AZ31 Alloy using Shear Deformation Techniques for Automotive & Aerospace Applications.	Dr. Swadesh Kumar Singh	GRIET, Hyd - (Mechanical)	Dr. Nitin R. Kotkunde	DST SERB CRG	2935400	Dec 17, 2020
31	Development of Mesoporous Materials with enhanced Hydrogen uptake for Fuel Cell Vehicles.	Dr. Sujith R.	Mechanical		DST SERB CRG	2064000	Dec 17, 2020
32	Investigating the Equation of State of Neutron Stars via Emitted Gravitational Waves.	Dr. Swastik Bhattacharya	Physics	Dr. Sarmistha Banik	DST SERB CRG	2335680	Dec 17, 2020
33	Nagarjuna's Analysis of the Origin and Dissolution of Existents: A Philosophical Investigation.	Dr. Jayesh A. K.	Humanities and Social Sciences	NA	ICPR	200000	Dec 23, 2020



## International Programmes & Collaborations Division (IPCD)

- One-day joint workshop with Hiroshima University was held remotely on August 19, 2020. Four faculty members from BITS, Pilani and three faculty members from Hiroshima University have participated in the workshop.
- One-day joint workshop was held remotely on November 20, 2020, with Hiroshima University. Three faculty members from BITS, Pilani and three faculty members from Hiroshima University participated in the workshop.
- IPCD organized the Global meet on Computational Modeling and Simulation: Recent Innovations, Challenges & Perspectives in four sessions. Faculty members from BITS and several foreign universities participated as speakers in the meet. The duration of the meet was from October 16 to November 7, 2020, and it was organized only on the weekends. A total of 42 scientific talks were delivered based on the theme of the workshop. Most of the speakers were from Foreign Universities, and BITS-Pilani faculty members also delivered a few talks.
- MoU with Macquarie University, Australia was signed on July 24, 2020.
- Under 3+2 program with University Queensland, one student took admission during the first semester of 2020-2021. Eleven students did their off-campus thesis abroad remotely.

**GLOBAL MEET ON**  
**COMPUTATIONAL MODELING AND SIMULATIONS: RECENT INNOVATIONS CHALLENGES AND PERSPECTIVE**  
 BY INTERNATIONAL PROGRAMMES AND COLLABORATION DIVISION

**OCT 16**  
 9AM-12PM AND 6PM-8PM  
 COMPUTATION IN OPTIMIZATION AND CONTROL

**OCT 23**  
 10AM-12PM  
 MODELING APPROACHES TO ENTERPRISE SYSTEMS  
 6PM-8PM  
 MULTISCALE AND MULTIPHYSICS MODELING AND COMPUTATIONAL ANALYSIS- FINITE ELEMENT ANALYSIS

**OCT 30**  
 10AM-12PM AND 6PM-8PM  
 COMPUTATIONAL BIOLOGY AND CHEMISTRY-COMPUTATIONAL BIOLOGY

**NOV 7**  
 10AM-12PM AND 6PM-8PM  
 COMPUTATIONAL BIOLOGY AND CHEMISTRY-MEDICINAL CHEMISTRY

**OCT 17**  
 10AM-12PM AND 6PM-8PM  
 MULTISCALE AND MULTIPHYSICS MODELING AND COMPUTATIONAL ANALYSIS- ENVIRONMENTAL ANALYSIS

**OCT 24**  
 10AM-12PM  
 HIGH PERFORMANCE COMPUTATION/CLOUD COMPUTING APPLICATIONS  
 6PM-8PM  
 DEPENDABILITY AND SECURITY

**OCT 31 & NOV 6**  
 10AM-12PM  
 MULTISCALE AND MULTIPHYSICS MODELING AND COMPUTATIONAL ANALYSIS- COMPUTATIONAL MECHANICS  
 6PM-8PM  
 MULTISCALE AND MULTIPHYSICS MODELING AND COMPUTATIONAL ANALYSIS

FOR REGISTRATION CHECK BITS MAIL

## Distinguished Online Talks/Lectures

Guest Lecture by	Organization	Topic of the Talk	Department	Date
Dr. Kaviraj Udupa MBBS, MD, Ph.D. Additional Professor,	Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences (NIMHANS), Bengaluru	Introduction to Non-invasive brain stimulation: potential applications in research and clinics.	Biological Sciences	Dec 9, 2020
Mr. Kashinath Gumme Engineering	Jacobs, Bangalore	The Scope for Transportation	Civil	Sep 01, 2020
Dr. Jimmy Thomas	Geotechnical Consultant	Earth Retaining Structures- An overview and case studies	Civil	Sep 24, 2020
Mr. Nirmalya Chakraborty	L&T, Chennai	The geometric design and the practical applications	Civil	Oct, 2020
Mr. Nirmalya Chakraborty	L&T, Chennai	The rehabilitation of Airport at Bhutan- A Case study	Civil	Oct, 2020
Mr. Madhusudhan Reddy	Megawide International	The preparation of documents for the design of airport projects	Civil	Nov 10, 2020
Dr. Bill Thies	Principal Researcher, Microsoft Research	Frugal Technologies for Global Health	Computer Science	Oct 01, 2020
Prof. Manoj Gopalkrishnan	IIT Bombay	Using Compressed Sensing for pooled testing of COVID-19 samples	Computer Science	Oct 03, 2020
Dr. C. S. R. Prabhu	Former Director Gen. NIC	Fog Computing and Big Data Analytics	Computer Science	Oct 19, 2020
Mr. Arijit Das	Distributed Networking Engineer at status.im	Distributed system: From theory to production	Computer Science	Nov 02, 2020
Prof. Debashis Mishra	Indian Statistical Institute, Delhi Centre	Contributions of Paul R Milgrom and Robert Wilson To Auction Theory	Economics and Finance	Nov 06, 2020
Prof. Prosenjit Gupta	Startup Founder and CS Algorithms Professor, Dean (Faculty of Engineering), Area Director and Professor (CS) at NIIT University, Neemrana, Rajasthan.	Algorithms and Data Structures	Electrical Sciences	Oct 21- 22, 2020
Prof. Abijit Patra	IISER Bhopal	Connecting the Dots: Bringing Ph back into the Ph.D	Chemistry	Jul 24, 2020
Dr. Gautam Basu	Bose Institute Kolkata	Jagadish Chandra Bose: The Road Not Taken	Chemistry	Jul 28, 2020



Guest Lecture by	Organization	Topic of the Talk	Department	Date
Prof. Harinath Chakrapani	IISER Pune	Using Organic Chemistry to Generate a Smelly Gas	Chemistry	Aug 14, 2020
Dr. Tamoghna Mitra	School of Material and Chemical Engineering, Taizhou University, Taizhou, China	Porous Molecular Solid for Separations	Chemistry	Sep 26, 2020
Dr. Ranjan Jana	Organic & Medicinal Chemistry Division, CSIR-Indian Institute of Chemical Biology, Kolkata	Green Chemistry and Engineering from a Societal Perspective	Chemistry	Oct 03, 2020
Dr. Rajendra Kurapati	National University of Ireland, Galway	Biomedical Applications and Biodegradability of Graphene Family Materials	Chemistry	Oct 31, 2020
Prof. A. Raghurama raju	Department of Humanities and Social Sciences, IIT Tirupati	The relationship between science and religion: and over or	Humanities and Social Sciences	Jul 17, 2020
Prof. Nanak Kakwani	Visiting Professor of Economics in China Institute for Income Distribution at Beijing Normal University, China	Income inequality explained in Layman's language	Humanities and Social Sciences	Sep 18, 2020
Prof. Elana Gomel	Department of American and English Studies, Tel Aviv University	Gender, violence and structure of the detective story	Humanities and Social Sciences	Oct 24, 2020
Prof. Margrit Shildrick	Department of Gender and Knowledge Production, Stockholms University	Bioprecarity in neoliberal times: ways of rethinking debility, feminism, and Social justice in the contemporary India and the world	Humanities and Social Sciences	Nov 21, 2020
Prof. K. Sairam	IIT-BHU, Varanasi	New Drug Discovery - Pharmacological Perspectives	Pharmacy	Aug 18, 2020
Mr. Ravi Prasad Rao	Head - Analytical R & D, Dr. Reddy's Laboratories Ltd., Hyderabad	Role of Pharmaceutical Analysis in Drug Development Process	Pharmacy	Nov 6, 2020
Prof. Anjan Kumar Gupta	IIT Kanpur	Optimization of Nb $\mu$ -SQUIDS for single particle nano-magnetism	Physics	Jan 31, 2020

## Student Events

### BITS Embryo

The online semester did not hold back BITS Embryo from conducting their interactive talks throughout the semester. The club hosted numerous personalities from different fields for the interest of students using Facebook and Instagram live as their medium. Neeraj Kabi – an esteemed actor and Sarthak Sethi – a Dubai Campus alumnus in the field of IoT were the guests in June. They also invited Alyssa Carson – a young and successful space enthusiast in collaboration with Ad Astra – the astronomy club of the campus. Anjali Gopalan – a well known LGBT community activist, better known as the founder of Naz Foundation; Meenakshi Lekhi – a Lok Sabha representative from the Delhi constituency, Awais Ahmed – CEO of a space tech startup called Pixmap; and Angira Dhar – an actress, producer, and assistant director were the speaker for the talks organized in July. The club also had a panel discussion on the occasion of BITSian's day. In August, Amit Goyal – a pioneer of the ever-growing online educational infrastructure – talked about the

future of online education in India. A routine placement talk was also organized with the students of different branches placed on or off-campus. Renowned Gujarati actor Pratik Gandhi was the guest for a talk in November where he shared his experience of working for the Indian TV series Scam 1992 as Harshad Mehta.

### Hindi Tarang

Despite an online semester, the Hindi Literary Club of the campus was quite active in conducting events throughout the semester. 'Srijan' was a poetry and story writing competition conducted in collaboration with the Hindi Language club of the Goa Campus, Abhivyakti. Apart from this competition, which saw active participation, the club hosted numerous dignitaries in the field of Hindi Literature. Geet Chaturvedi, R. R. Khandalkar, Amit Gupta were a few amongst them. Renowned writers like Nikhil Sachan and Divya Prakash Dubey were also the guests of these live sessions conducted on the club's Instagram page.

### Mesmerizing Artwork by Students during the Pandemic

During the COVID Crisis a lot of students, expressed their thoughts through beautiful gliding strokes on canvas and paper. It not only fruitfully engaged them but also helped them to explore and express their innermost self and surroundings in an aesthetic manner. Here are a few selected creative works by students attempted during the Pandemic.

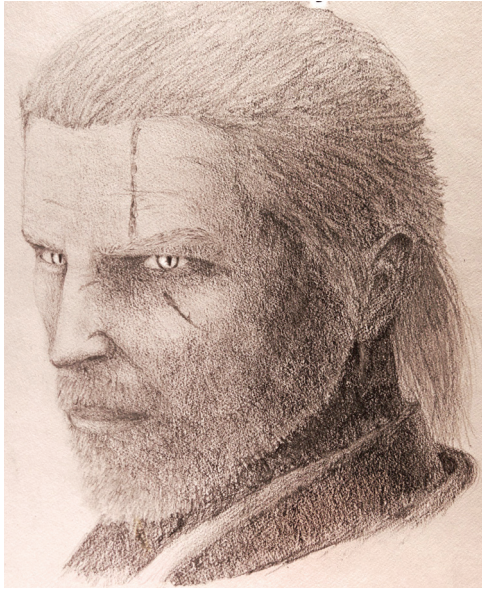


Artist: Deeksha Arora, Medium: Acrylic



Artist: Prateek Agarwal, Medium: Charcoal





Artist: Gaurvit Kumar, Medium: Pencil



Artist: Nirmalya Ghosh, Medium: Inkpen



Artist: Nimish Prabhune, Medium: Soft Pastels



Artist: Ameesha Srivastava, Medium: Water Color

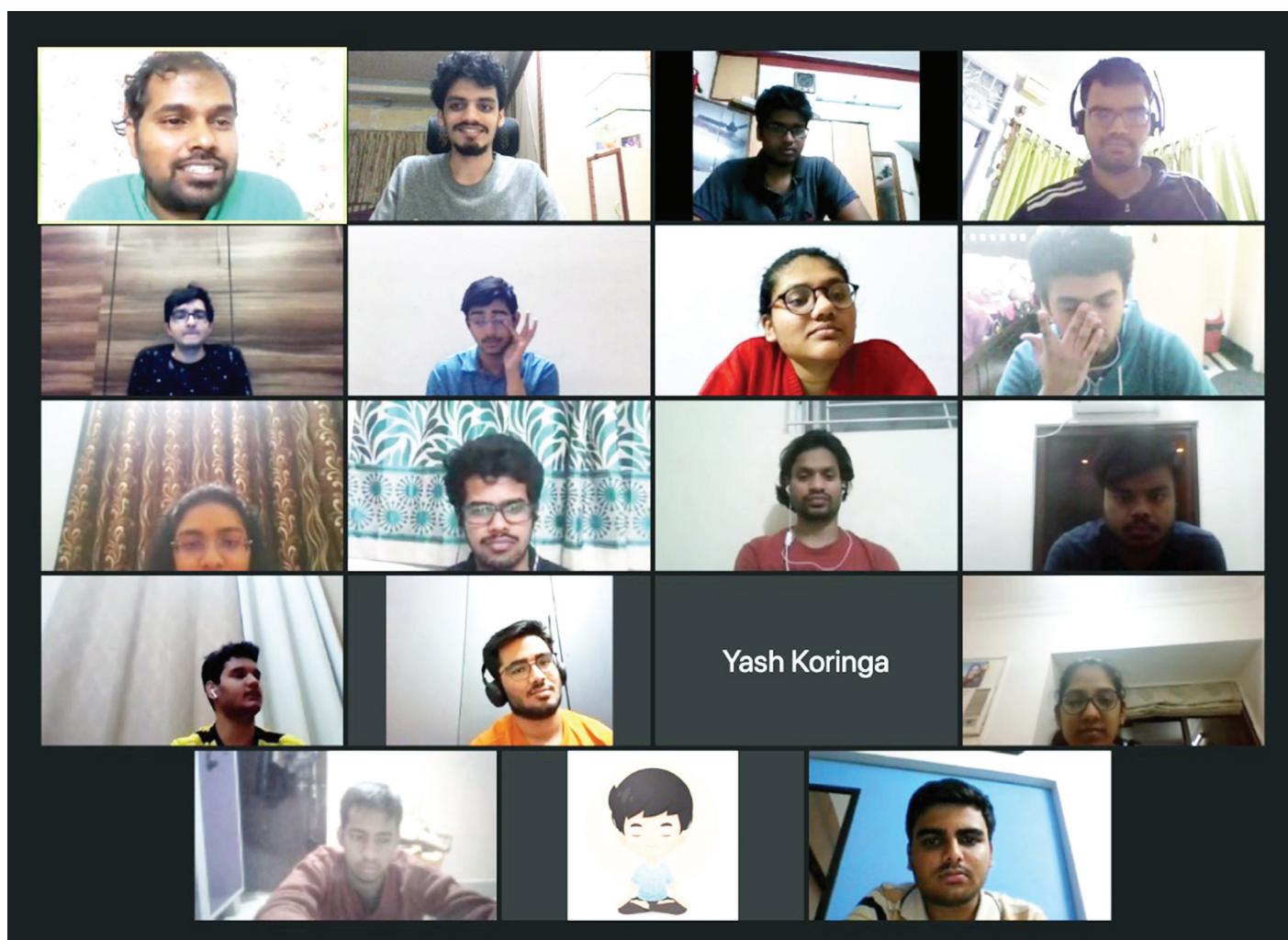


Artist: Ananya Bose, Medium: Water Color



## Steering way to a Healthy Mind and Body: Online Breath and Meditation Workshop

These unprecedented times have led to severe mental stress to the student community. Academic pressure, broken relationships, issues back home – all led to a colossal toll on the mental health of the students. The negative thoughts of the mind can be altered significantly through effective breathing techniques. The Art of Living Students' Chapter organized the Online Breath and Meditation workshop from December 10-13, 2020 with 20 enthusiastic participants of first year. The students learnt techniques to empower themselves, effectively handle academics along with co-curricular activities, stress management, time management and increasing creativity. In this virtual environment, it was a very necessary energizer for the participants. Effective meditation and breathing techniques were also taught which helped them improve their self confidence, productivity and taught them the importance of living in the present moment with a smile. The workshop gave the participants, a platform to connect with their seniors, alumni and batch mates who they can reach out to for help and support.



## Poetry Competition organized by Gender Champions

A Poetry Competition 'Verses vs Verses' was organised by the Gender Champions on November 24, 2020, and the participants were judged by: Dr Anhiti Patnaik, Dr Pranesh Bhargava Department of HSS, BITS Pilani Hyderabad. The event was supported by the student clubs - Queer Consortium, ELAS, and Hindi Tarang. A total of 28 beautiful entries made it to the poetry competition. The posts announcing the winning entries of each language were posted on social media sites of BITS Pilani Hyderabad campus.

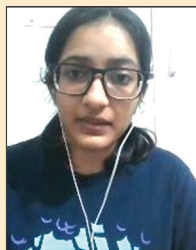
The winners of the completion were Miss. Esha Kurwah (English category) for her poem 'I am Beautiful' and Mr. Tanmay Pathak (Hindi category) for his poem 'Mein Dekhungi'

They have recited their poems and the videos were updated on Social Networking sites.

### Esha Kurwah reciting her poem 'I am beautiful'

*i am beautiful  
i stare into the mirror  
my kajal is off a bit,  
my saree isnt well draped,  
i will learn to tackle it right,  
not a bright student but  
this is what i wanna be,  
is it my choices?  
is it a fault?  
that ties and shirts dont call me the way sarees do,  
that bindis and jhumkas feel beautiful on me too,  
that i like the smell of fresh nail paint,  
that the idea of how i dress is just a social constraint,  
and i cant say it loud enough yet,  
but this is who i am,  
and it kills me more everytime i look at myself,  
the agony of rejection,  
those anonymous stares,  
the apathy, the unending trolls,  
my battle scarred soul,  
what they dont get is  
this is not meant to fit,  
i dont even want to fit,  
and not everything beautiful fits,  
life isnt always fair  
but hey, its not a fault,  
its just choices,  
this is who i wanna be,  
not a bright student but  
i will learn to tackle it right,  
my saree isnt well draped,  
my kajal is off a bit  
i stare into the mirror  
i am beautiful*

(Now read it bottom up)



### Tanmay Pathak reciting his poem 'Mein Dekhungi' मैं देखूंगी!

पोस्ट पढ़ेंगे फेसबुक पर  
मेरे नाम का हैशटेग ट्रेंड करेगा  
हज़ारों हज़ार लाइक होंगे  
हर आदमी फॉरवर्ड सेंड करेगा  
कचहरी की फिर गवाहियों में  
आदलतों की कार्यवाहियों में  
जब हर आदमी कहेगा,  
'मैंने कुछ नहीं देखा'  
मैं देखूंगी... मैं देखूंगी!

नेताजी कहेंगे कपड़े मेरे छोटे थे  
या पहनी तो साड़ी थी पर बात मानिए  
चाल-चलन कुछ ओन्ठे थे  
जब कहेंगे नेताजी माइक पकड़ कर  
कि गलती लड़कों से हो जाती है  
मैं देखूंगी... मैं देखूंगी!

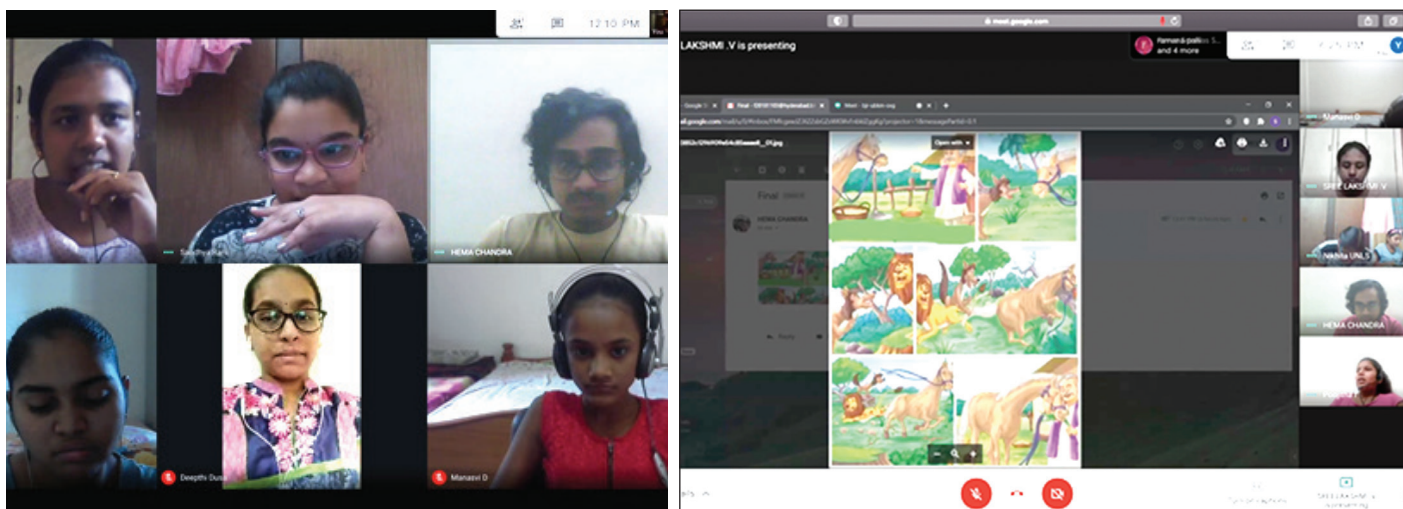
जब सड़कों पर देश उतर आएगा  
मोम्बत्तियों की बिक्री बढ़ायेगा  
लिखेंगे लेखक और कवि झूठी संवेदनाएं  
फिर झूठी बातें, झूठा शोक,  
महीनों में ठण्डा जाएगा  
जब डर-डर कर छोटी बहन मेरी  
लैंपपोस्ट की रोशनी पार करेगी  
मैं देखूंगी... मैं देखूंगी!



## Social Initiatives

### Nirmaan - Project Parishkar

Education in adversities is a perfect example of where humanitarian-development coherence is crucial. 'Project Parishkar' is Nirmaan's educational initiative that started in the 2018-19 academic year. It aims to provide free and compatible educational support in daily tuitions for the non-teaching staff's kids in and around the campus. With pandemic and online-schooling, their assistance became more crucial than ever before. For the first semester of the academic year 2020-21, the initiative was carried out virtually through Google meets with around 50 dedicated volunteers working for hours, benefiting 25 students. Alongside academics, they intended to help in the overall development of children. They conducted online storytelling, essay writing, and many other competitions on the weekends through the Google meet platform.



### Manthan'20

Manthan is the annual NGO conference organized by Nirmaan Organisation, BITS Pilani Hyderabad Chapter. It is a key forum of meeting and dialogue among NGOs, aimed to provide a common platform for NGOs to come together for exchanging their ideas and to get the attention of corporates to their work. This semester, Manthan happened virtually on August 23, 2020. Manthan'20 observed active participation of different national student-based NGOs and inspiring talks by the Chief guest - Mrs. Mani Mala Kolluru, CEO & Managing Trustee of Shankar Eye Foundation, Guest of honor - Mr. Mayur Patnala, co-founder of Nirmaan and alumnus of BITS Pilani, and central Nirmaan Committee members - Ms. Swathi Vempati, Ms. Uma Kesani, and Ms. Mounika Konatham. Gopali Youth Welfare Society-IIT KGP and Abhigyaan-BITS Goa won Manthan's main event Adhyayan, which was a case study competition.



## NSS BPHC

On the occasion of Air Force Day, NSS organized a talk with a faculty member Dr. Sanjay Vidhyadharan who is a retired wing commander and was commissioned in the Indian Air Force in 1994 as an engineering officer. Their latest project- Far From Home, aimed at spreading environmental mindfulness and COVID awareness. They distributed pamphlets and sanitizers in villages of Nellore district. As an extension, the distribution was also carried out in government schools in the Guntur district, where the participants were also given a lesson on pollution and measures to reduce it.



## Activities Conducted by the Community Welfare Unit

### Independence Day Celebrations

The 74<sup>th</sup> Independence Day was celebrated on August 15, 2020 at BITS Pilani Hyderabad Campus. Professor G. Sundar, Director, BITS Pilani Hyderabad Campus, hoisted the National Flag. Although the celebrations were kept low key, the spirit, enthusiasm and exuberance of the Independence were high as usual. Several faculty members and staff joined the celebrations with fervour while maintaining the safe distance protocol as prescribed by the Government.

### Crisis Response Team (CRT): Combatting the COVID Pandemic in the Campus

With the rapid increase of incidents of corona virus spreading across the country, the Institute facilitated in creating safer workplace by implementing various preventive and precautionary measures. At the behest of Prof. G. Sundar, Director, BITS Pilani, Hyderabad Campus, a Crisis Response Team (CRT) was made in the campus. The CRT consists of Dean Administration, Associate Dean SWD, Faculty in charge Community Welfare, Two Senior Resident Doctors, Deputy Registrar, Estate Manager and Superintendent (General Administration). The CRT has been taking all necessary steps and focusing on all types of preparation so as to deal with any types of future crisis related to COVID-19. Doctor members of the team have been interacting with the Government Nodal Officers and Medical Officers of the Government Hospitals and were in constant touch with them. They are also constantly updating the CRT on the Govt. advisories from time to time. The CRT has been interacting with faculty members, non-teaching staff of the institute, outsourced staff and their agencies, contractors engaged in campus activities and also the domestic assistants working at this campus.

CRT has been collating information and taking cognizance of the issues and concerns which are in turn being reported to the Director of the institute for further decisions and taking necessary steps to deal with the crisis. Advice to residents of campus have been circulated to strictly follow all preventive measures and a continuous supervision made by CRT team to implement all such strictly. A separate fever clinic was set up at H-7 block during peak phase of COVID-19, July to September 2020, with one doctor and a staff nurse sitting daily to deal with all fever/flu/cough related symptoms. Main aim was to isolate all fever cases from other types of non-covid medical cases. Rest of the time, patients were advised to discuss with doctor over medical center phone for necessary treatment, to minimize the spread of infection.

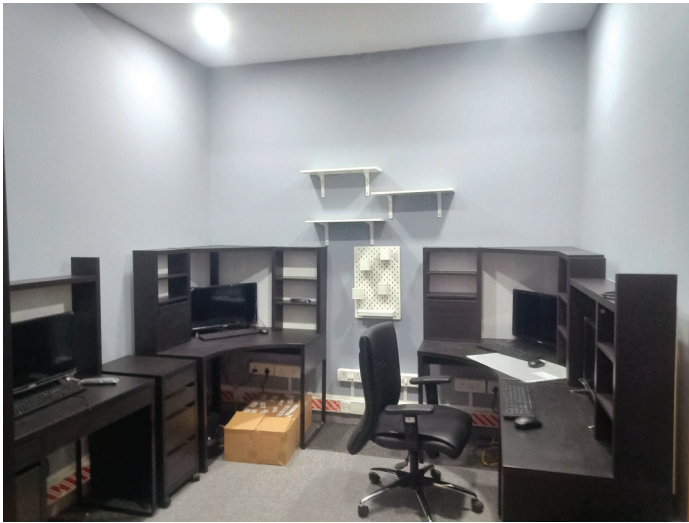
Two nearby tertiary care COVID hospitals have been tied up to deal with critical case if any. All frontline workers have been provided with PPE kit, face mask and hand gloves to deal with the situation at this odd hour. A quarantine hostel has been prepared to isolate any suspected asymptomatic cases based on their history of travel or exposure to any COVID cases. Moreover, a collection of around Rs. 28 lakhs was made by voluntary donation of all faculties, staff, alumni and many PhD scholars of BITS Pilani Hyderabad campus to help the nearby poor villagers towards their monthly rations, ready made food packets and face mask. It was distributed by members of our crisis response team with help of local authority. Also arrangement was made to provide basic necessary medical advice to the sick villagers over phone by our doctors on duty.



Standing Row – From left – Suresh, Kanthamma, Prashanthi, Sharadha Rani, Hemalatha, Bhaskar,  
Front Row – Dr. Naga Jyothi, Dr. K.K. Mishra, Dr. Kalyan Kumar, Dr. Jenny Mercy



## New Projects



Automotive cyber systems lab



Faculty Quarters H3



Psycho Acoustic lab



Wilp IIoT Lab



## Introducing New Faculty (July-December 2020)

PSRN	Name of the Faculty	Designation	Department	Date of Joining
H0753	Gopal Krishna Kamath M	Assistant Professor, Gr-I	Electrical & Electronics Engineering	Jul 1, 20
H0754	Prabakaran Saravanan	Assistant Professor, Gr-I	Mechanical Engineering	Jul 4, 20
H0755	Rohit Gupta	Assistant Professor, Gr-I	Mathematics	Jul 10, 20
H0756	Addepalli Ramu	Visiting Professor	Mathematics	Jul 20, 20
H0759	Nikumani Choudhury	Assistant Professor, Gr-II	Computer Sci & Information Sys	Jul 25, 20
H0760	Arnab Dutta	Assistant Professor, Gr-I	Chemical Engineering	Jul 27, 20
H0761	Shivang Shekhar	Assistant Professor, Gr-I	Civil Engineering	Aug 3, 20
H0763	Mrinal Ketan Jagirdar	Assistant Professor, Gr-I	Mechanical Engineering	Sep 1, 20
H0764	Subhradeep Pal	Assistant Professor, Gr-I	Electrical & Electronics Engineering	Sep 10, 20
H0765	Dheeraj Agarwal	Assistant Professor, Gr-I	Mechanical Engineering	Sep 30, 20
H0766	Farida Parvez Barbhuiya	Assistant Professor, Gr-I	Mathematics	Nov 2, 20
H0767	Sajith P.	Assistant Professor, Gr-I	Mathematics	Nov 2, 20
H0768	Nabin Kumar Meher	Assistant Professor, Gr-I	Mathematics	Nov 10, 20
H0769	Afkham Mir	Assistant Professor, Gr-I	Chemical Engineering	Nov 12, 20
H0770	Raghunath Reddy Madireddy	Assistant Professor, Gr-I	Computer Sc i& Information Sys.	Nov 16, 20
H0771	Debirupa Mitra	Assistant Professor, Gr-I	Chemical Engineering	Nov 16, 20
H0772	Nishith Gupta	Professor	Biological Sciences	Nov 20, 20
H0773	Spandan Bhattacharya	Assistant Professor, Gr-I	Humanities and Social Sciences	Dec 1, 20
H0774	Ilyman Abrar	Assistant Professor, Gr-I	Chemical Engineering	Dec 1, 20
H0775	Abhishek Sarkar	Assistant Professor, Gr-I	Mechanical Engineering	Dec 14, 20
H0776	P. Raghu	Assistant Professor, Gr-I	Civil Engineering	Dec 28, 20
H0777	Ayan Das	Assistant Professor, Gr-I	Computer Science & Information Sys.	Dec 28, 20
H0778	Chanchal Chakraborty	Assistant Professor, Gr-I	Chemistry	Dec 30, 20

## Editorial Team



Prasanth Inturi



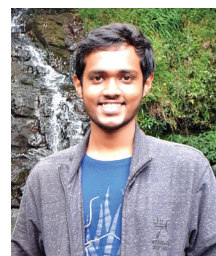
Lavanya Suresh



Maya Vinai



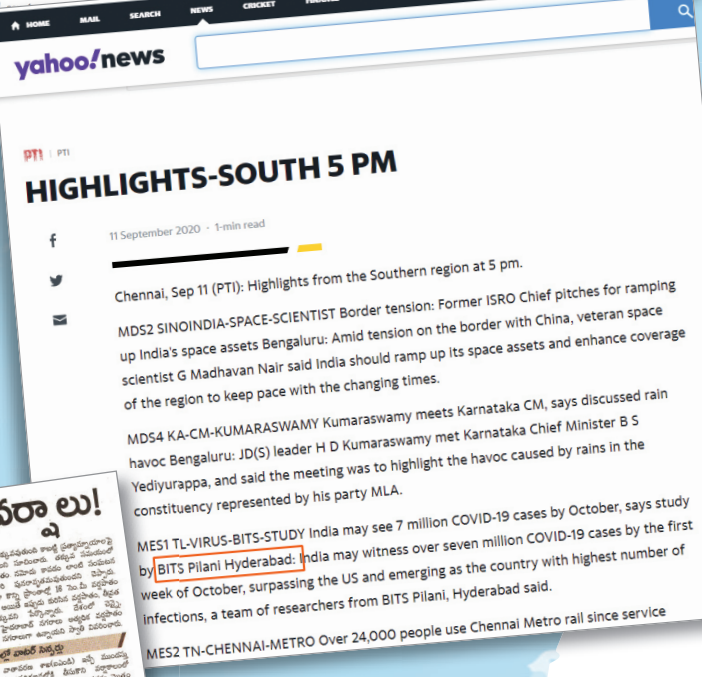
Santosh Mahapatra



Sivaramakrishnan



Adarsh Mishra



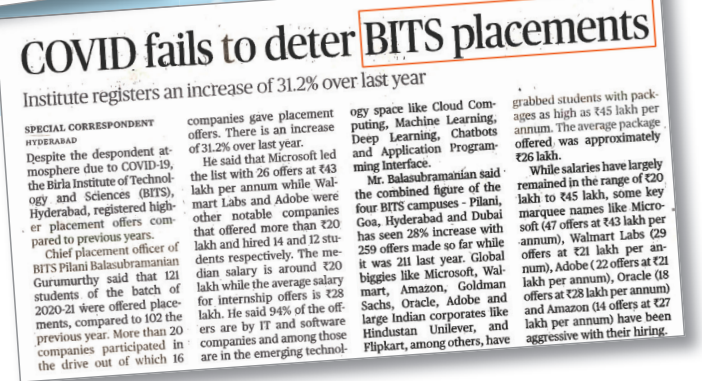
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