



Bengal Institute of Technology

Tech Town, Basanti Highway, Kolkata – 700150,
West Bengal, India

Institution's Innovation Council 3.0 Annual Report 2020-2021



**INSTITUTION'S
INNOVATION
COUNCIL**

(Ministry of HRD Initiative)

The IIC is set up in the institute to inspire the imaginative potential of our student society to work on new ideas and innovation and assist them to create start-ups and entrepreneurial ventures. The Institution's Innovation Council at Bengal Institute of Technology focuses on creating a complete ecosystem to foster the culture of Innovation across the campus from ideas generation to pre-incubation, incubation and after graduation as successful start-ups. IIC is set up to inspire the innovative energy of our students to work on new ideas and promote them to create start and entrepreneurial ventures.

Vision:

To provide the needs of students as well as faculty entrepreneurs with innovative ideas of social relevance and thereby propagating a culture of entrepreneurship in the campus which will encourage our education system and thereby expanding the national economic and social advancement.

Mission:

To produce a system with the required infrastructure that can empower students and faculty to innovate and prototype their ideas with industrial standards and support from Government, industry and reputed academic institutions around the world and help them to actualise their potentials.

Objectives of IIC:

- Students/Faculty associated with IICs will have exclusive opportunity to participate in various Innovation related initiatives and competitions organized from institution level to international level.
- Meet/Interact renowned Business Leaders and top- notch academicians.
- Opportunity to nurture and prototype new ideas.
- Mentoring by industry Professionals.
- Experiment with new technologies.

Head of the Institution:

Dr. Prof. Narayan Chandra Ghosh, Principal, BIT

Faculty Members of IIC Council:

| Name | Department | Designation | Position |
|----------------------|---|---------------------|--|
| Sandipan Sahu | Computer Science & Engineering | Assistant Professor | President , ARIIA Coordinator |
| Sudipta Bhattacharya | Computer Science & Engineering | Assistant Professor | Vice President , Social Media Coordinator |
| Arpita Chakraborty | Electronics & Communication Engineering | Assistant Professor | Convener |
| Moutan Mukhopadhyay | CSE/IT | Assistant Professor | Start-up Activity Coordinator, NISP Coordinator |
| Shanta Phani | Computer Science & Engineering | Assistant Professor | Innovation Activity Coordinator |
| Shovon Nandi | Electronics & Communication Engineering | Assistant Professor | Internship Activity Coordinator |
| Sausabh Kanti Sarkar | Biotechnology | Assistant Professor | IPR Activity Coordinator |
| Debasish Pradhan | Basic Science | Assistant Professor | NIRF Coordinator |
| Bulbul Mukherjee | Computer Science & Engineering | Assistant Professor | Member |
| Ajanta Palit | Electronics & Communication Engineering | Assistant Professor | Member |
| Antara Mukherjee | Electronics & Communication Engineering | Assistant Professor | Member |
| Nabanita Saha | Computer Science & Engineering | Assistant Professor | Member |
| Banani Raychowdhury | Biotechnology | Assistant Professor | Member |
| Tapan Kumar Pal | Biotechnology | Assistant Professor | Member |
| Debalina Barik | CSE/IT | Assistant Professor | Member |
| Rajesh Roy | Basic Science | Technical Assistant | Member |
| Tanmoy Pal | CSE/IT | Assistant Professor | Member |

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|----------------------------|---------------|---------------------|--------|
| Tripti Majumdar | CSE/IT | Assistant Professor | Member |
| Udayan Bhattacharya | Biotechnology | Technical Assistant | Member |
| Abhishek Bakshi | CSE/IT | Assistant Professor | Member |
| Sayanti Sinha | ECE | Assistant Professor | Member |

Student Members of IIC Council:

| Name | Discipline | Role | Year | Association With |
|----------------------|----------------|--------------------------|------|-----------------------------------|
| Lavam Sharma | CSE | Innovation Coordinator | 4 | IEDC |
| Sayantika Dutta | ECE | Startup Coordinator | 4 | EDC |
| Soumyadip Daripa | CSE | Member | 4 | Incubation Center |
| Sagnick Biswas | ECE | IPR Coordinator | 4 | Incubation Center |
| Bishakha Saha | ECE | Internship Coordinator | 4 | EDE |
| Sayan Hazra | ECE | Member | 4 | Incubation Center |
| Utsav Akash Naskar | CSE | Social Media Coordinator | 4 | Incubation Center |
| Prodyumna Chatterjee | ECE | Members | 4 | Incubation Center |
| Partha Manna | ECE | Member | 2 | Innovation Cell |
| Anik Dutta | ECE | Member | 2 | Idea Clubs/Innovation Clubs/St |
| Swastika Ghosh | ECE | Member | 2 | Idea Clubs/Innovation Clubs/St |
| Sarthak Mondal | ECE | Member | 3 | IEDC |
| Rajdeep Sarkar | ECE | Member | 3 | Incubation & Pre-incubation Units |
| Ayudh Nandi | ECE | Member | 3 | EDE |
| Riddhimann Mukherjee | Bio-Technology | Member | 4 | Tinkering Labs/Centre |
| Nikita Agarwal | Bio-Technology | Member | 4 | Incubation & Pre-incubation Units |
| Tapajyoti Routh | Bio-Technology | Member | 4 | EDE |
| Medha Maitra | Bio-Tech | Member | 3 | Idea Clubs/Innovation Clubs/St |
| Avijit Chakraborty | Bio-Tech | Member | 3 | EDE |

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|----------------------|----------|--------|---|--|
| Abhinandan Basu | Bio-Tech | Member | 3 | Tinkering Labs/Centre |
| Sampurna Roy | Bio-Tech | Member | 2 | Tinkering Labs/Centre |
| Subhadwip Dey | Bio-Tech | Member | 2 | Idea Clubs/Innovation Clubs/St |
| Kankhita Das | Bio-Tech | Member | 2 | Idea Clubs/Innovation Clubs/St |
| Anurag Banerjee | IT | Member | 3 | Innovation Cell |
| Sk Reyhan Rahman | IT | Member | 3 | Innovation Cell |
| Rohit Das | IT | Member | 3 | IEDC |
| Sameer Alam | IT | Member | 2 | Incubation & Pre-incubation Units |
| Arya Kumari | IT | Member | 2 | Incubation & Pre-incubation Units |
| Israt Praveen | IT | Member | 2 | Tinkering Labs/Centre |
| Samrat Paul | IT | Member | 3 | Innovation Cell |
| Arpan Mondal | CSE | Member | 3 | Innovation Cell |
| Ghazanfer Wahab | CSE | Member | 3 | Idea Clubs/Innovation Clubs/St |
| Ujjwal Kar | CSE | Member | 2 | Industry-Institute Interface Unit/Centre |
| Sudipta Chakroborty | CSE | Member | 2 | Industry-Institute Interface Unit/Centre |
| Samadrita Paul | CSE | Member | 2 | Idea Clubs/Innovation Clubs/St |
| Nilanjana Basu | IT | Member | 4 | Innovation Cell |
| Haimanti Dutta | IT | Member | 4 | Innovation Cell |
| Hanzala Omair Ansari | IT | Member | 4 | Innovation Cell |

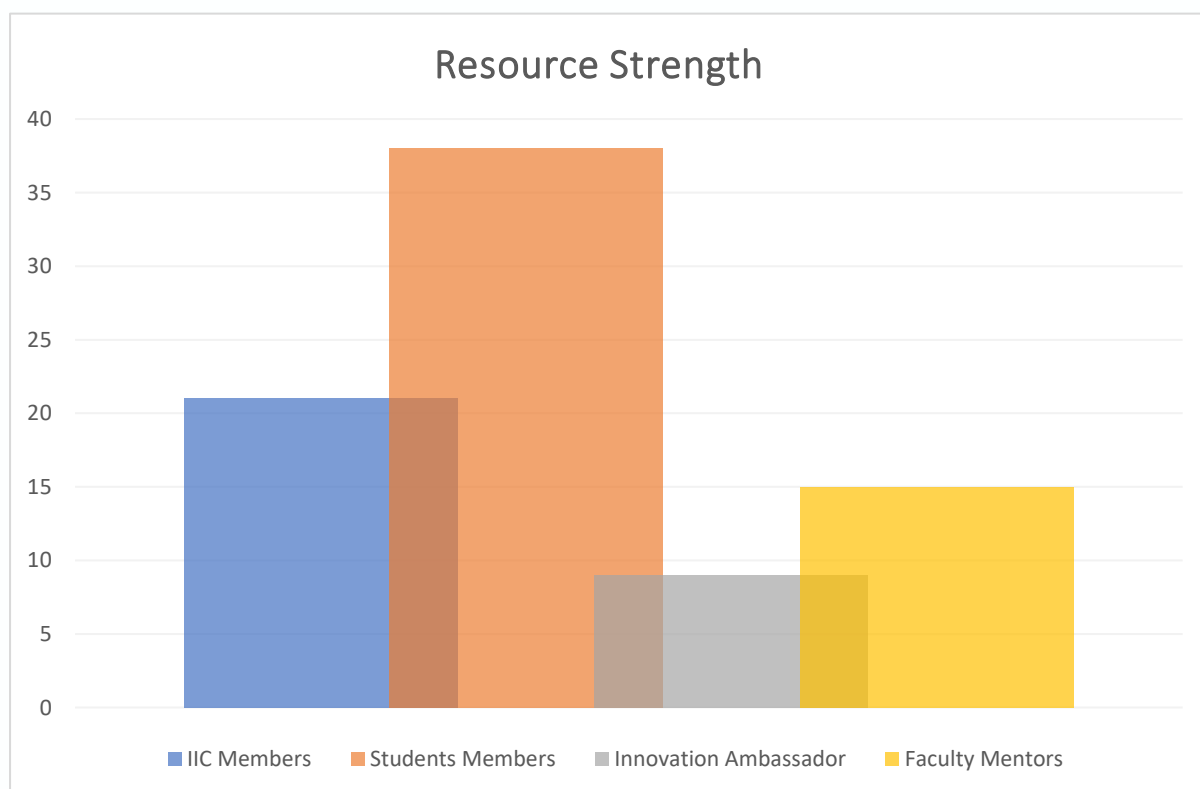
External Members of IIC Council:

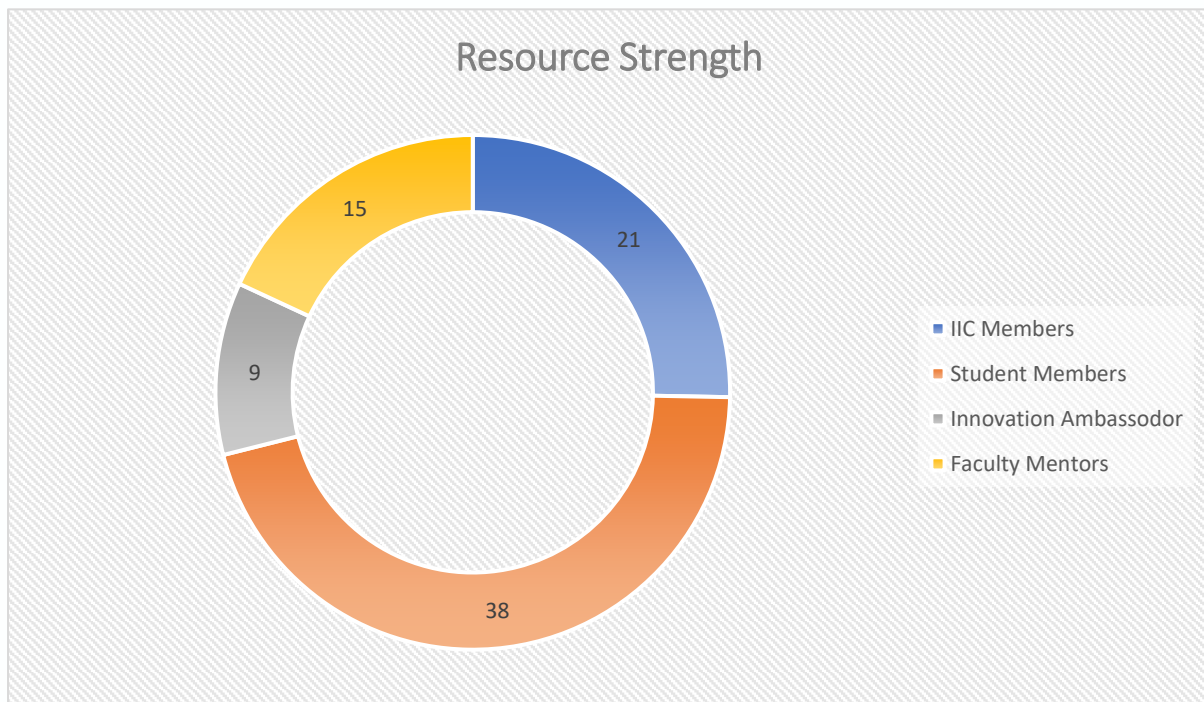
| Name | Organization | Role | Member |
|--------------------------|--------------------------------------|---------|--|
| Anand Kumar Singh | VYRAZU LABS PVT LTD | Members | Expert from nearby Industry/Industry association/ Ecosystem Enablers |
| Partha Dasgupta | Ascentspark Software Private Limited | Members | Start-up/ Alumni Entrepreneur |
| Krishnendu Ghosh | IDBI Bank Ltd. | Members | Bank/Investor |

Innovation Ambassador:

| Sl. No | Name | Department | Status |
|--------|---------------------|---------------|----------------|
| 1 | Shovon Nandi | ECE | Advance Course |
| 2 | Rajesh Roy | Basic Science | Advance Course |
| 3 | Ajanta Palit | ECE | Basic Course |
| 4 | Antara Mukherjee | ECE | Basic Course |
| 5 | Banani Raychowdhury | Bio-Tech | Basic Course |
| 6 | Bulbul Mukherjee | CSE/IT | Basic Course |
| 7 | Debalina Barik | CSE/IT | Basic Course |
| 8 | Tapan Kumar Pal | Bio-Tech | Basic Course |
| 9 | Tripti Majumdar | CSE/IT | Basic Course |

Portfolio of the Institution:





The IIC Calendar Activities are distributed in four quarters. Every quarter comprises IIC Calendar activity, MIC Driven Activity and Self Driven activity. IIC Calendar activity and Self driven activities are planned and conducted by the IIC members for the benefit of its students and faculty members. The activity planner of each quarter and brief details of each activity are mentioned below.

Achievements:

Prof. Tripti Majumdar

Published by the students of CSE 4th year 2020, Under the guidance of Assistant **Professor Tripti Majumdar**, BIT CSE/IT department

- ***“An Extensive Analysis of Human Gender Prophecy using Computer Vision”***

Saha, D., De, D., Ghosh, P., Sengupta, S. and Majumdar, T., 2020. An Extensive Analysis of Human Gender Prophecy using Computer Vision. International Research Journal of Engineering and Technology (IRJET), 7(5), pp.1223-1229.

- ***“Automatic Detection of Gender from Face and Palm Images using a 2-CNN Framework “***

Ghosh, P., Saha, D., De, D., Sengupta, S. and Majumdar, T., 2020, September. Automatic Detection of Gender from Face and Palm Images using a 2-CNN Framework. In 2020 IEEE 1st International Conference for Convergence in Engineering (ICCE) (pp. 357-360). IEEE.

Prof. Arpita Chakraborty

- Under Prof. Arpita Chakraborty's supervision a team (Team: Uninox) of students took part in "Toycathon" organized by MHRD.
- Under Prof. Arpita Chakraborty's supervision a Team: Uninox bagged 2nd prize (Rs.15,000 cash prize) in "Virtual Toy Hackathon" organized by Techno India Group (TIG).
- She has published many papers with students also.
 - S. Guhathakurata, S. Saha, S. Kundu, **A. Chakraborty**, J. S. Banerjee, "South Asian Countries Are Less Fatal Concerning COVID-19: A Fact-finding Procedure Integrating Machine Learning & MCDM Technique". Journal of The Institution of Engineers (India): Series B, Springer, <https://doi.org/10.1007/s40031-021-00547-z>, 2021, (**Scopus**).
 - S. Guhathakurata, S. Kundu, **A. Chakraborty**, J. S. Banerjee, "A Novel Approach to Predict COVID-19 Using Support Vector Machine". In Data Science for COVID-19, Elsevier (press), 2021, (**WoS, Scopus**).
 - J. Chattopadhyay, S. Kundu, **A. Chakraborty**, J. S. Banerjee, "Facial expression recognition for human computer interaction", New Trends in Computational Vision and Bio-inspired Computing: Selected works presented at the ICCVBIC 2018, Springer, 1181-1192, 2020, (**WoS, Scopus**).
 - S. Guhathakurata, S. Saha, S. Kundu, **A. Chakraborty**, J. S. Banerjee, "A New Approach to Predict COVID-19 using Artificial Neural Networks". In Cyber-Physical Systems: AI and COVID-19, Elsevier (press), 2021, (**WoS, Scopus**).
 - S. Biswas, L.K. Sharma, R. Ranjan, S. Saha, **A. Chakraborty**, J. S. Banerjee, "Smart Farming & Water Saving Based Intelligent Irrigation System Implementation using the Internet of Things", In Recent Trends in Computational Intelligence Enabled Research, Elsevier (press), 2021, (**WoS, Scopus**).

Prof. Bulbul Mukherjee

Under Prof. Bulbul Mukherjee's supervision **3** teams (Team: ALPHA INDIA, GyanBriksh, and Empire Flag) of students took part in "Toycathon" organized by MHRD. **One of the group selected for Grand Finale.**

Prof. Debalina Barik

Completed the Innovation Ambassador Program successfully and delivered a talk on "Entrepreneurship for young minds" which was about how students can incorporate entrepreneurship in campus.

Prof Ajanta Palit

Completed the Innovation Ambassador Program successfully and attained panel discussion with students on the topic "Entrepreneurship in campus".

Prof. Abanti Datta

Under Prof. Abanti Dutta's supervision 3 teams (Team: Be² + 1, The Robo Doll, The Rukma Vimana) of students took part in "Toycathon" organized by MHRD.

Highlight IIC activities:

| Date | Name | Type | Link |
|--------------------------------|--|------|----------------------|
| 15 – 23 October 2020 | KAPILA: Kalam Program for IP Literacy and Awareness | MIC | Link |
| 3 rd November 2020 | IKS Orientation Session | MIC | Link |
| 25 th November 2020 | Orientation Session on National Education Policy (with a focus on Innovation and entrepreneurship) | IIC | Link |
| 29 th November 2020 | Java Script: Jack of all Trades and Master of all | SDA | Link |
| 13 th December 2020 | Webinar on Salesforce | SDA | Link |
| 21 st December 2020 | Orientation Session on National Innovation and Start-up Policy (NISP) | IIC | Link |
| 26 th December 2020 | Be your own boss in the challenging world of jobs: A beginners guide to entrepreneurship | SDA | Link |
| 29 th December 2020 | Exposure and field visit for problem identification | IIC | Link |
| 6 – 7 February 2020 | Arduino workshop | SDA | Link |
| 7 – 8 February 2020 | Workshop on Android and Flutter | SDA | Link |
| 20 th February 2020 | Session/ Workshop on Business Model Canvas (BMC) | IIC | Link |
| 23 th April 2021 | talk on "From your Ph.D./ Masters Thesis to a start-up" | MIC | Link |
| 26 th April 2021 | Session on Why IP is important in academia? | MIC | Link |
| 05 th May 2021 | IIC Council Meeting- Review of Q2 progress and Planning of Q3. | IIC | Link |
| 12 th June 2021 | Impact Lecture: 1. Opportunities of innovation and entrepreneurship 2. How to become a start-up Entrepreneur | SDA | Link |
| 13 th June 2021 | Interactive Session/Mentoring Session with "Successful Start-up founders" (Entrepreneurs in Campus) | IIC | Link |
| 19 th June 2021 | Workshop on Intellectual Property Rights (IPRs) and IP management for start up | IIC | Link |
| 26 th June 2021 | Workshop on Prototype/Process Design and Development - Prototyping | IIC | Link |
| 27 th June 2021 | Webinar on Data Science in Financial Industry | SDA | Link |

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|------------------------------|---|-----|----------------------|
| 03 rd July 2021 | Webinar on How ML works in Industry | SDA | Link |
| 04 th July 2021 | Webinar on Entrepreneurial Mindset | SDA | Link |
| 11 th July 2021 | webinar on Cloud Architecture on Serverless aws | SDA | Link |
| 11 th August 2021 | National Webinar on Research, Innovation and Ranking | MIC | Link |
| 21 – 24 August 2021 | World Entrepreneurs Day Celebration | MIC | Link |
| 28 th August 2021 | Orientation session for all students & faculties of Institute by Innovation Ambassador(s) | IIC | Link |

Participation in Innovation & Entrepreneurship Initiatives:

The college has been a continuous rank holder in the National Institutional Ranking Framework (**NIRF**) organized by the Ministry of Education (MoE), Government of India, for the assessment years **2016**, **2018**, and **2020** for earning its excellence in the teaching-learning processes and research practices.

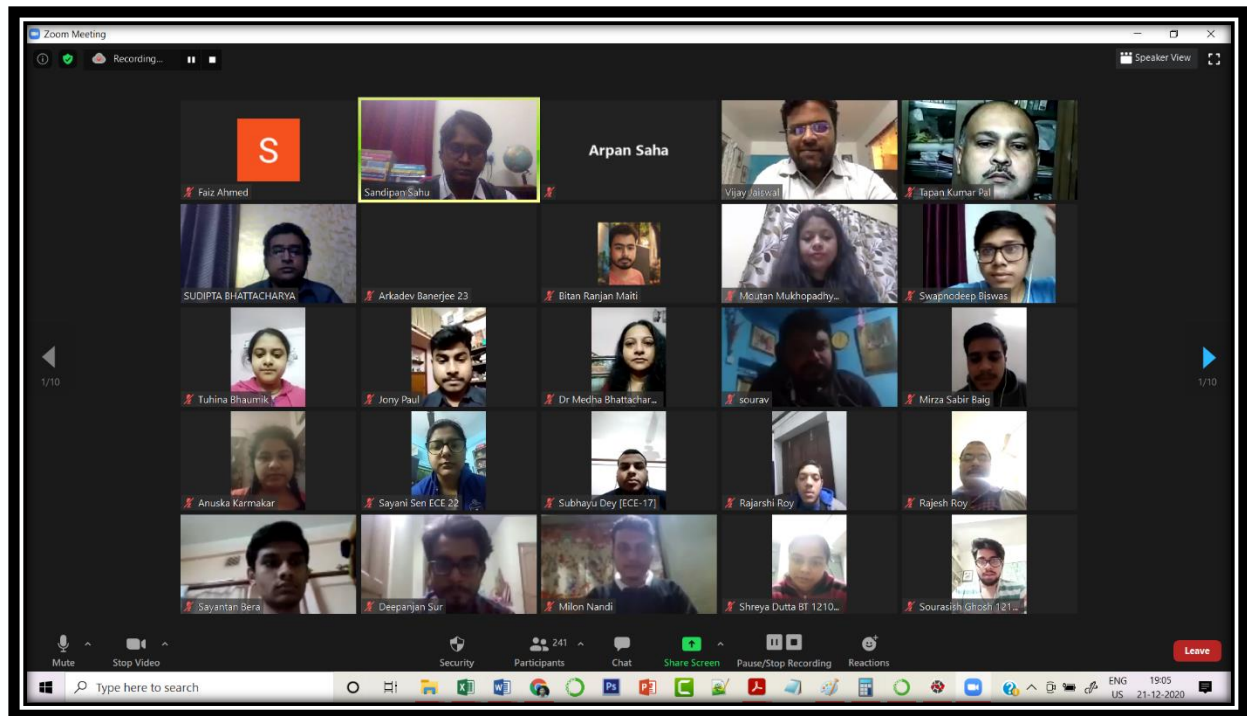
- ❖ Establishment of Institution's Innovation Council (IIC) as per the norms of Innovation Cell, Ministry of HRD, Govt. of India during IIC Calendar year **2018-19**
- ❖ Participating in the Atal Ranking of Institutions on Innovation Achievement (**ARIIA**) (ARI-C-6294) for the last 3 years.
- ❖ The institution also adopted National Innovation and Start-up Policy (**NISP**) and formed the working committee.
- ❖ We participating in the Smart India Hackathon (SIH) from its inception. Our students had achieved all India **first runners-up prize** in the SIH.
- ❖ Our students also regularly participate on **Bengalathon** - India's first State Level Hackathon, Organised by Department of Information Technology and Electronics, Government of West Bengal.

Social media & Connections:

| Social media | Link |
|---------------|---|
| Facebook Link | https://www.facebook.com/bitcollegetechno |
| Twitter Link | https://twitter.com/bitcollegetechn?s=08 |
| Linkedin | https://www.linkedin.com/school/bengal-institute-of-technology/ |

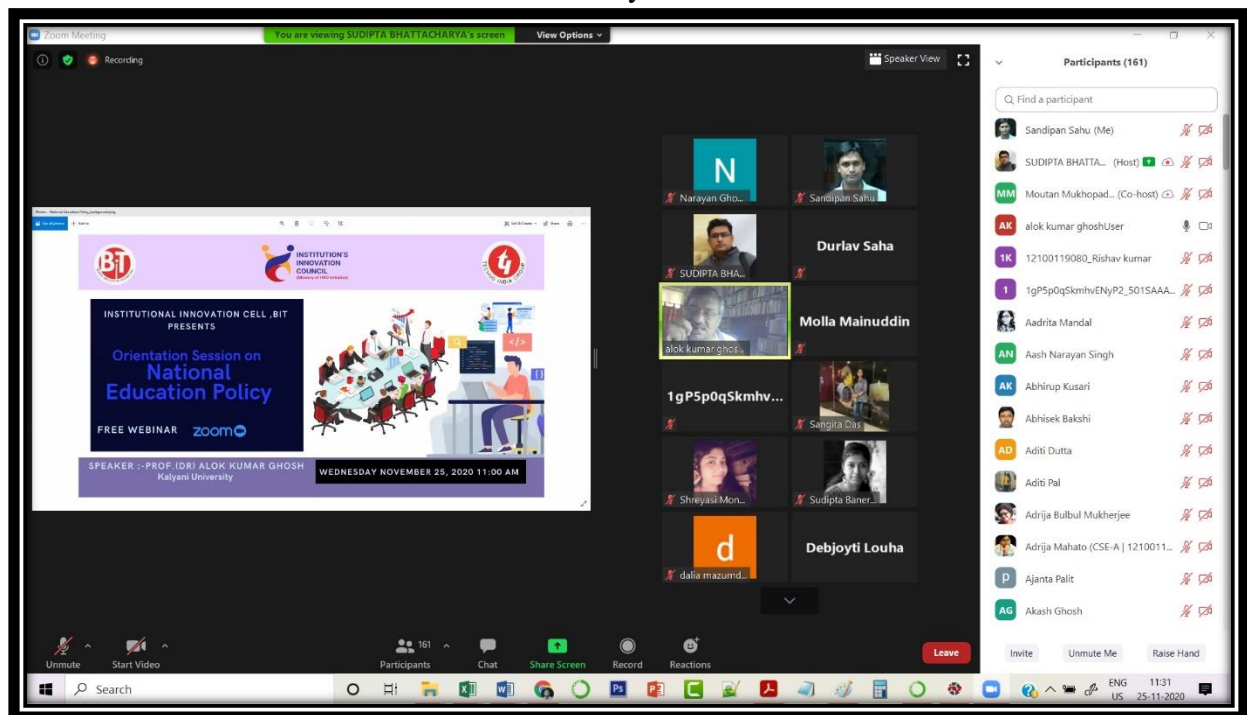
Images:

Session on NISP



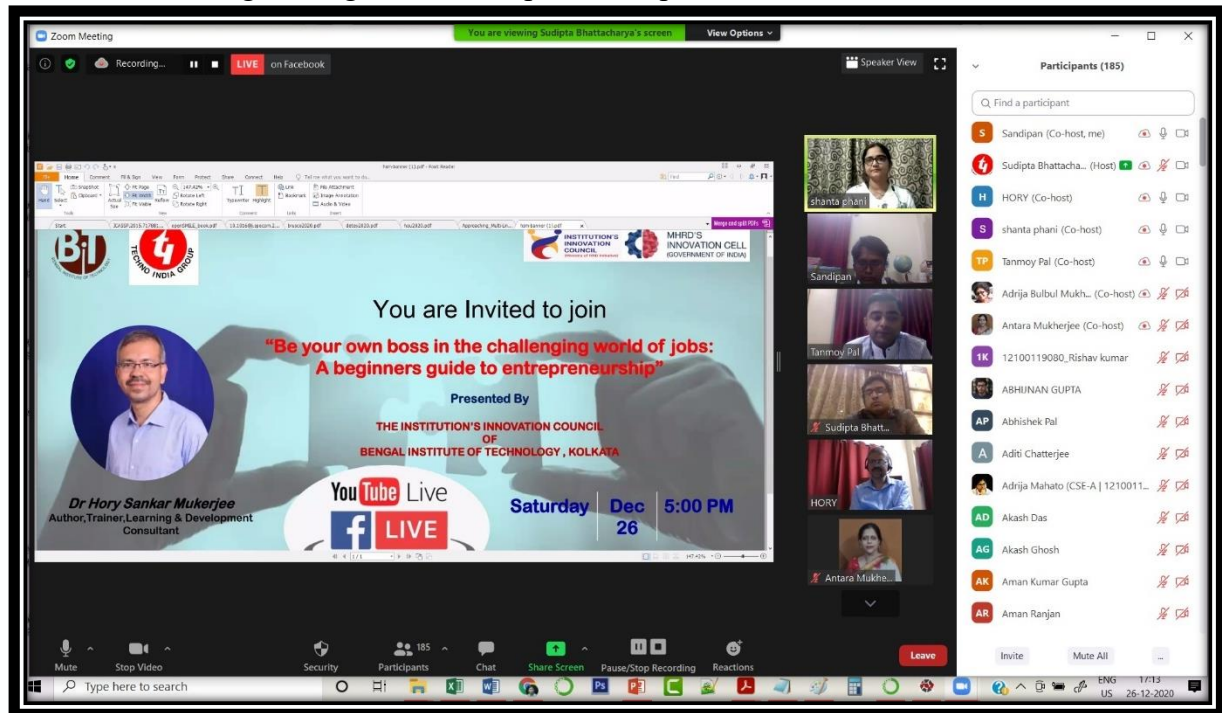
Session screenshot

Orientation Session on National Education Policy



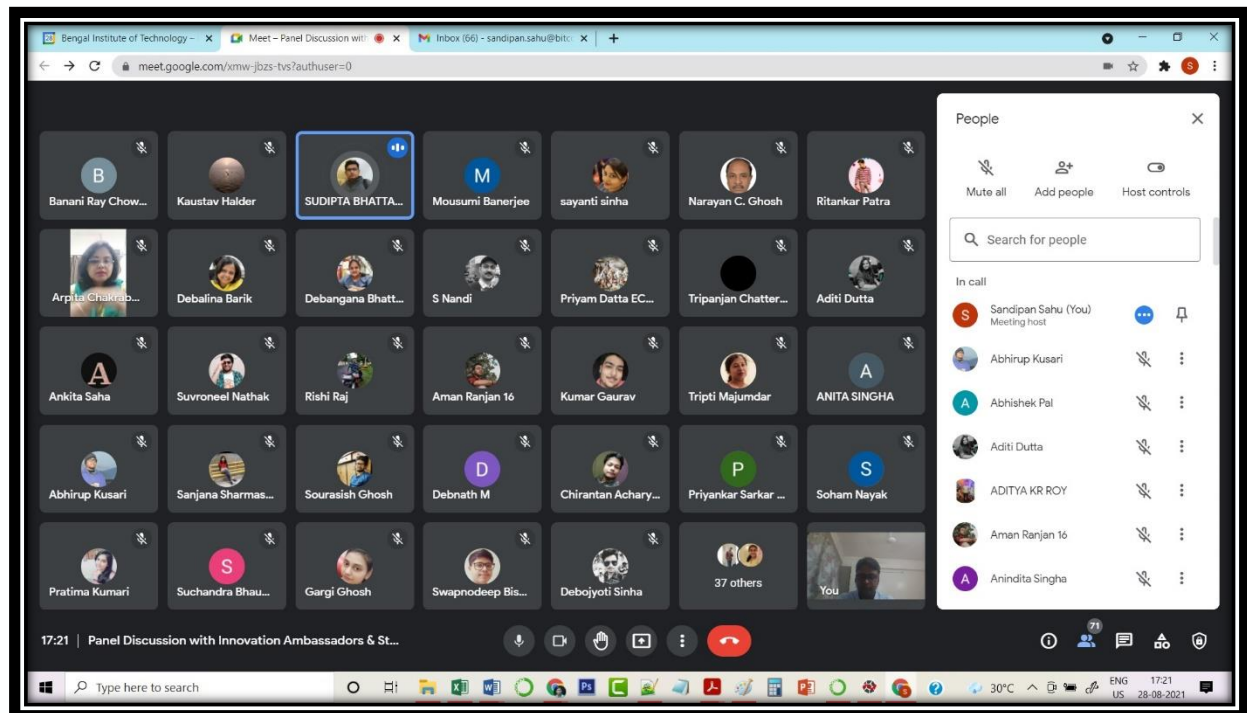
Session screenshot

Session on “A beginners guide to Entrepreneurship”



Session screenshot

World Entrepreneurship Day Celebration: Panel Discussion



Session screenshot

Contact:

| | |
|---------------------------|--|
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| Corporate address: | EM-4/2, Sector-V, Salt Lake, Kolkata-700091, West Bengal, India |
| Contact: | +91-6292219053 / 6292219054 |

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