



RESEARCH & INNOVATION

- MOUs Signed
- SMP 2020-21
- NVCTI

ALUMNI CONNECT

- Alumni Speak
- Launch of Alumni Portal
- Campus Mall
- Institution of JS Gill MISE Award

AWARDS & ACCOLADES

- KPMG-2020
- Adobe Analytics Challenge 2020
- Switch Energy - 2020
- Outstanding Educators Award

CAMPUS EVENTS

- Khanan-2020
- 95th Foundation Day
- Sports

SOCIAL INITIATIVES

IIT (ISM) ranked in Band-A (between 11th - 25th) in Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020

ARIIA RANKING 2020

FROM THE DIRECTOR'S DESK



Although 2020 still continues to be a trying year for all us and that we couldn't escape the anxieties of lockdowns, yet we managed to work successfully embracing the new normal. I am happy to share with you some of our success stories.

- IIT(ISM) was ranked the 12th best engineering institution in India. We missed a top 10 position by a whisker. It will be our endeavour to continue to improve our rankings through sustained improvements in the teaching, research, and innovation ecosystems.
- We have started three new inter-disciplinary Masters Programs in (i) Data Analytics, (ii) Business Analytics, and (iii) Pharmaceutical Science and Engineering to cater to the emerging technological needs of the country.
- More inter-disciplinary Masters Program incorporating AI and ML are expected in the next one to two years.
- In addition we are starting a new Masters Program in Social Media and Culture from AY 2021-22. This is a unique offering which integrates data science with humanities and social science.
- In R&D we hope to shift our thrust to new product and process development, which is the need of the hour. Several initiatives have fructified in this direction.
- Sandvik Mining and Rock Technology has agreed to setup Sandvik Mine Automation Learning Centre.
- IIT(ISM) Dhanbad has been selected as a Technology Innovation Hub (TIH) with a funding of Rs. 110 crores from Govt. of India. The TIH will act as a funding agency to drive the development of Cyber-Physical Systems in exploration and mining in India. The idea here is to integrate sensors, IOT, and AI in physical systems.

- To give international R&D exposure to our PhD students, we have started a new Sandwich program with partial funding from the institute.
- The NVTIL set-up by a generous grant of Rs. 8.0 crores by Shri Naresh Vashisht will be operational early next year.
- NITI AAYOG has selected IIT (ISM) for setting up the Atal Community Innovation Centre.
- IIT(ISM) Dhanbad has become an MSME approved HI (Host Institute) for business incubation.
- The Institute Innovation Council of IIT (ISM) has been rated 5 star by MHRD among all IICs in the Eastern region, which includes IIT Kharagpur and IIT Gauhati.
- Our students have done us really proud in international innovation competitions: a) **Team Navacharitam** of IIT(ISM) has won the 2020 KPMG World Ideation Challenge beating 8000 applicants from 500 universities across 19 countries b) **Team Alphas** won the Adobe Analytics Challenge with a prize money of USD 35000 beating teams from Chicago Booth, Fashion Institute of Technology (FIT), National University of Singapore, University of California (Los Angeles), and the University of Utah in the finals.

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FROM THE EDITOR'S DESK

Dear Readers, as we value your staying connected to us, we come to you once again with a selection of news from the campus; brief reports on the research work being conducted; our alumni stories and highlight some of the superlative achievements of our students and faculty members during the last few months. This issue of the newsletter also features a conversation with Prof Prem Vrat, Chairperson, BoG, IIT (ISM), who joined us on 25 August, 2020.

We hope you enjoy reading it. You can follow us on our website, Facebook, LinkedIn, Instagram, and Twitter pages for further news.

EXCLUSIVE

**MBC in conversation with
Prof. Prem Vrat,
Chairperson, BoG, IIT (ISM) Dhanbad**



Q. You've had a distinguished career of 58 years in the IIT system. How would you reflect on your journey as an educator and an administrator in the IIT system?

A. I have had 58 years long association with IIT system starting as an undergraduate B.Tech student in Mechanical Engineering at IIT Kharagpur in 1962 & M.Tech in Industrial Engineering and Operations Research from the same institute. I joined IIT Delhi on 9th August 1968 as a Lecturer in Mechanical Engineering Dept, IIT Delhi and enrolled as PhD scholar in IIT Delhi on a part-time basis and got PhD in 1974. Thus all my degrees have been from the IIT system.

As an educator my journey is 52 years plus as I still actively participate in teaching, guiding research; publish papers and involved in consulting.

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I have held every academic rank at IIT Delhi from lecturer to professor; now an Honorary Professor at IIT Delhi after my superannuation in 2006. This experience has been exciting and still keeps me in the company of young and brilliant minds. I have held almost all types of administrative roles at departmental, institute level and university level – Head CMS; Coordinator ASRP; Dean (PGS&R); Dy. Director (Faculty) and Officiating Director at IIT Delhi before becoming Founding Director at IIT Roorkee. Though I held all these positions, my link with teaching and research remained intact including when I was Professor and Division Chairman of Industrial Engineering and Management at the Asian Institute of Technology, Bangkok, Thailand, as Vice-Chancellor at UPTU, Lucknow and at ITMU, Gurgaon as well as Professor of Eminence at MDI, Gurgaon and Pro-Chancellor at The NorthCap University. This way I am actively engaged in teaching and research, for all these years, that keeps me young.

As I reflect back on this journey, I feel excited; satisfied and grateful to the IIT system for nurturing me from a fresher to the current level. The academic culture of IIT system, flexibility and academic autonomy, transparent and merit driven decision making, societal esteem of the IIT system, government support and international recognition keep the spirit of the IIT faculty and students high. Perhaps if we replicate the key success factors of IIT system in other academic institutions; these all can become IIT like. The key enablers of excellence of IIT system in my opinion are: Brilliant students; best among the faculty available, visionary academic leadership; liberal funding from the government within its resource constraints, patronage of the society, industry, peer groups and freedom and autonomy enjoyed particularly the operational autonomy. It has been a great moment for me all these years.

Q. What are the key requirements you think are pertinent for the Institute to follow for its growth?

A. An institute must focus on “Academic Excellence” and “Socially relevant research outcomes” for a meaningful growth. While numbers are important but numbers without quality do not have much meaning.

Hence our focus on excellence must put in place four keys enablers of quality: faculty; adequate funding; flexibility required in the policy and governance to nurture excellence as well as perceived academic freedom within the framework of vision/goals of the Institute. Attracting, motivating and retaining the talent is the most critical requirement as the faculty are the soul of an academic institution, who have to be self-driven, must be in high spirit, inspired as contributors to the nation building process. Quick but good quality decisions have become an operating necessity because of high competition being faced by each IIT. Search for talent-both faculty and students- is key challenge even among the IIT system. Having said this; we need to put enabling policies and strategies and administrative support structure in pursuit of academic excellence.

This calls for high focus on relationships among faculty, staff, students, governance and employers. Perceived transparency, efficient decision making, team work and channelizing all towards positive energy is important. If a sense of equity, fairness and justice prevails across the organization; we would be able to contain the negative energy among people which will help achieving institutional goal. We need to constantly monitor our actual performance in comparison to the goal and make mid-term corrections in our policies and procedures to minimize deviation from goal accomplishment.



An institute must focus on “Academic Excellence” and “Socially relevant research outcomes” for a meaningful growth.



– Prof. Prem Vrat

Q. How do you look at your tenure here in IIT (ISM) and what are your immediate goals for the Institute?

A. My three years tenure as Chairperson, Board of Governors is an honour, an opportunity and a challenge. It is honour because the Honourable President as the Visitor, and Honourable Minister of Education as the Chairman of the IIT Council have shown their confidence in me to lead the governance of the Institute towards academic excellence; it is an opportunity to use my past experience of more than five decades in the IIT system to contribute & bring the best practices of other IITs wherever applicable. I hope that ISM would look at getting the IIT brand status as a great opportunity. In this context, we need to leverage our huge alumni base as a potential asset and involve them in a big way by enriching the emotional bond with them. Alumni have played a big role in other old IITs and we need to evolve schemes to actively involve them.

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- Alumni have also contributed generously to the growth of the institute. In addition to the multitude of scholarships, the alumni have contributed:
 - Rs 85 lakhs on behalf of IIT(ISM) to the PM Cares fund.
 - Rs. 2.12 crores for converting nine class rooms into smart class rooms and setting up two studio units for high definition recording of online lectures.
- I am also proud to state that IIT(ISM) has been active in helping Dhanbad combat Covid-19:
 - Contribution to PM Cares fund by employees of the Institute.
 - Donation of RTPCR testing equipment.
 - Providing cooked food and dry rations to the less privileged residents of Dhanbad.
 - Financial support in setting up 20 bed Covid ICU unit at Central Hospital.
 - Plan to donate refrigeration units for storing vaccines in Dhanbad.
- The Centre of Societal Mission has continued its charitable activities by (i) distributing sanitary napkins and (ii) warm clothing in our five adopted villages and nearby bastis.
- We have also started our efforts to contribute to the development of the state of Jharkhand:
 - Work started for the development of Master Plan for Dhanbad region.
 - Shortly conduct an Inter-School Innovative Ideas competition for schools of Jharkhand in association with the state government. Winners will be invited to develop their prototypes at IIT Dhanbad with funding from the Institute.
 - Start a student internship program which will attach students to Public/Govt officials and Govt departments so that they can have an understanding of the ground realities.
 - We hope to contribute actively to the development in education, health, and agriculture sectors of the State.

Ladies and Gentleman, it is indeed my proud privilege to be the Director of this great institution and together with the alumni, faculty, officers, staff, and students we will continuously strive to bring more glory to IIT (ISM) Dhanbad.

IIT (ISM) is in a better position to leverage its large and accomplished alumni base, being the oldest in the family as an institute, though one of the newest in this new avatar of IIT.

I feel that involving our alumni is a major area where we all should work. It has enormous untapped potential.

Q. What is your leadership philosophy and how do you intend to inspire confidence in the employees?

A. My leadership style is 'leading by setting example'. I wish to be a playing captain and myself do what I expect others to do. With that in mind; I have continued to teach, guide research irrespective of positions held by me. In my view, academic leadership is coordinative type and he/she is the first among equals. Open mindedness; involving all stake holders; total transparency in an objective evaluation of options and evolving collective wisdom to find a future direction is my style. Benchmarking with the relevant role models is a good way to improve. Inspiring faculty; creating a sense of commitment among all and improving relationship among them should be our focus to have happy; inspired; positive work culture. Rewarding sincere and dedicated performers may help better in inspiring even the less performing persons. Genuine desire to help even non-performers to realize their untapped potential is an important area to work for. Create a feeling of a happy IIT (ISM) family with common goal of reaching greater heights and bench marks.

LAST Q: What impressions come to your mind when you think of IIT(ISM)?

Synergize brand IIT and ISM for multiplier effect!

Q. Today institutions of higher education have put more emphasis on research due to which education is in the shadow of research. How do you see this trend and what should be more prioritized according to you?

A. I am very clear in my mind that teaching, academic research, funded research and consulting are important for all faculty but in that order of priority sequences.

In higher education institutions both teaching and research are two sides of the same coin, but research at the cost of teaching is not acceptable. I also strongly feel that teaching, research and outreach are not in conflict with each other. These actually enrich each other. Good research improves quality of teaching; good teaching facilitates good research. Industry interaction/consulting also help improve teaching and making research more relevant.

Hence to me, priorities among teaching, research and consulting should in no way be compromised. In the faculty performance appraisal system that I evolved at IIT Roorkee; this priority structure is reflected. However, I am of the view that research should also be socially relevant instead of working on research problems as extensions of the developed world.

Q. How can we 'increase resource efficiency' and equip our students to become 'all-rounders'? Will multi-disciplinary holistic education – with more of arts and humanities – at the undergraduate level be a workable model as spelt out in the NEP-2020?

A. We should increase resource efficiency by improving productivity of our resources. Elimination of waste of all resources – materials, finance and human should be a starting point. Find all those programs where we are not able to fill up our capacity in UG, PG and PhD programs. We may review non-performing assets which may mean revisiting course offerings; consolidation and phasing out of consistently non-performing programs.

Low placements year after year should be seen to identify such weak areas. Augmenting resources by involving industries through collaboration; CSR funding, alumni support and launching new, relevant and popular programs if required, jointly with others should also be explored seriously. IITs at Delhi and Kolkata can be potential opportunities in resource augmentation. Involve B.Tech students in research, innovation and startups through technology and business incubators.

We need to leverage IIT system to make our students more employable by integrating knowledge, skills and develop positive attitudes among them. In addition to technical subjects; focus on humanities and social sciences; liberal arts, internships will make them all-rounders. Multi-disciplinary focus; flexibility of choices, choice based credits as envisaged in the New Education Policy 2020 should become a new norm. Blended learning and hybrid teaching with optimal mix of offline- online modes must be availed. In fact, NEP-2020 should become a basis for evolving a road map for marching forward in the journey of academic excellence.



MESSAGE TO OUR STUDENTS



You are the purpose of our existence. Make your experience at IIT (ISM) campus truly enjoyable and rewarding so that later you will feel that these were the best years of your life. Our best wishes for your development. Be a great engineer, manager and scientist, but also be a great human being. May God bless you all!



MESSAGE TO OUR ALUMNI



We bask in the reflected glory of your success in the world of work. Do well in whatever you do but remember that our relationship is a life-long one. Take interest in your alma mater and be passionate in helping it build its brand in the IIT system through proactive involvement in our affairs. Contribute in whichever way you can to make IIT (ISM) the top notch Institute among all IITs. We are proud of you and we need you!





X-RAY PHOTOEMISSION SPECTROSCOPY (XPS)

RECIPIENTS OF SHASTRI MOBILITY PROGRAMME (SMP) 2020-21

PROF. TARACHAND AMGOTH
DEPTT. OF CSE



"Green and Intelligent Edge for delay-Sensitive IoT Applications".

COLLABORATOR:
PROF. VENKATADIANVAHI;
UNIVERSITY OF ALBERTA

PROF. RAVI K. GANGWAR
DEPTT. OF ECE



Design & Development of Multiple Input Multiple Output (MIMO) Antennas for sub-6-GHz Applications Engineering

COLLABORATOR:
PROF. RAMBABU KARUMUDI
UNIVERSITY OF ALBERTA

PROF. SURESH PANDIAN ELUMALAI
DEPTT. OF ESE



Development of altered exhaust pipe design school bus for reducing nano particle exposure to school going children

COLLABORATOR:
DR. XU (SHINE) ZHANG CAPE
BRETON UNIVERSITY

SHASTRI INSTITUTIONAL COLLABORATIVE RESEARCH GRANT



Prof. Rajeev K. Ranjan, Dept. of Electronics Engineering has received the Shastri Institutional Collaborative Research Grant for a project entitled, **"Memristor based biosensor design for COVID-19 Embedded and VLSI"** with Prof Balbir (Bob) Gill, University of British Columbia, CANADA

MOU BETWEEN IIT (ISM) AND FOREIGN UNIVERSITIES

- The Department of Electronics Engineering has signed an MoU with Boise State University, USA with an objective to venture into collaborative academic and research activities.
- The Department of Electronics Engineering has signed an MoU with National United University, Miaoli, Taiwan with an objective to venture into collaborative academic and research activities.
- The Department of Mechanical Engineering has signed an MoU with ECOLE CENTRALE DE NANTES (France) with an aim to promote Student, faculty exchange, Joint research by multi-institutional collaboration, Participation in seminar and academic meetings, Summer research program, and Study abroad program.

MOUs SIGNED



Ministry of Education
Government of India

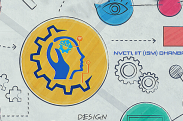
ICFRE signs MoU with IIT (Indian School of Mines) Dhanbad for promoting and coordinating forestry research, extension and education at the national level



- MoU signed with Indian Council of Forestry Research and Education (ICFRE), Dehradun with the objectives of promoting cooperation in the field of mining area reclamation and forestry research, exchange of scientists and technologists and implementation of collaborative research projects.
- MoU signed with AIIMS Deoghar for ten years to undertake joint research on drug designing and lab-on-a-chip devices that can conduct several analyses usually done in a laboratory.
- MoU signed with NHAI under the ambit of Institutional Social Responsibility (ISR). The institute through its authorized faculty, researchers and students will carry out periodic investigation and give suitable suggestions for improving the efficiency of existing highway asset.
- MoU signed with Capgemini Technology India Ltd. This collaboration will help students and faculty to work on technology driven projects which will help in addressing the challenges of the industries.
- Sandvik and IIT (ISM) signed an MoU to provide scholarship of Rs. 1 lakh each, to 12 meritorious 2nd year students of B. Tech. (Mining) and Dual Degree of Mining Engineering. The scholarship may be extended to the 3rd and 4th years, for discerning students with stellar academic record. This program will run till the end of 2026.

NEW INSTRUMENTS INSTALLED AT CENTRAL RESEARCH FACILITY IN 2020

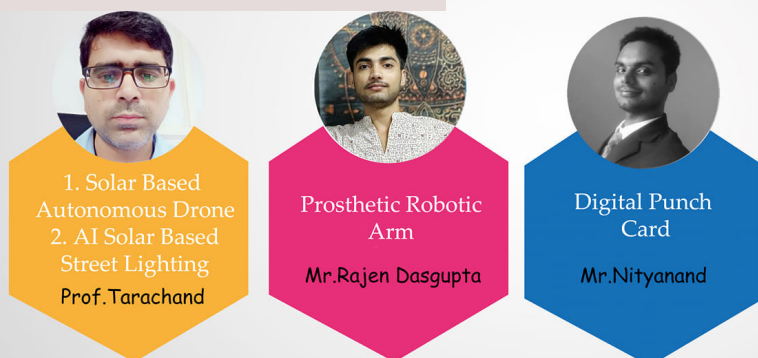
- X-Ray Photoemission Spectroscopy (XPS)**
- Typhoon HIL Based Real-Time Simulator with Renewable Energy System (PV, Wind) Set Up**
- High Resolution Transmission Electron Microscope (HRTEM)**
- Wavelength Dispersive X-Ray Fluorescence (WDXRF)**
- High Resolution X-Ray Diffractometer (HRXRD)**
- High Resolution Mass Spectrometer (HRMS)**



Ministry of Education's Innovation Cell has rated IIT(ISM) Dhanbad 5-star for undertaking various programme to promote Innovation and Start-Up.

IIT(ISM) Dhanbad has now become a MSME approved Host Institute (HI) for business incubation

SELECTED PROPOSALS:



Heartiest Congratulations!!

PIYUSH DUTTA INNOVATION & INVENTION AWARDS 2020

Piyush Dutta Innovation and Invention Awards 2020 was held on 11th November 2020. **Sanchit Kumar** (Mining Engg) of **Team Navcharitam** was declared the winner for his proposed idea of deployment of drones enabled with satellite imagery sensors along with custom algorithm in the mining industry. **Team DAAP** consisting of **Darshil Asawa** (Mining Engineering) and **Kapil Verma** (Electronics and Instrumentation Engineering) bagged the runners up position for their idea of DAAP guidance system. Prize money of Rs. 65,000 was announced for the winner.

10TH EDITION OF SAMSUNG INNOVATION AWARD 2020

NVCTI hosted the finale of SAMSUNG INNOVATION AWARD 2020 jointly with Samsung R&D Institute India, Bangalore in November, 2020.

- **Ayush Somani** (Mathematics and Computing), **Gaurav Kumar** (Mathematics and Computing) and **Gyanendra Das** (Mathematics and Computing) pitched up with an idea on 'Invo-AI: An innovative E-Invoicing Solution' and won the Samsung Innovation Award Challenge. The team bagged the first position and won a cash prize of ₹ 100000.
- **Sai Bhargav Reddy Vootkuru** (Environmental Science engineering), **Kotapati Siddharth Choudary** (Engineering Physics) and **Rahul Kedia** (Engineering Physics) won the second prize and bagged a cash prize of ₹ 80000.
- **Ankita Jaiswal** (Applied Geophysics), **Somya Jain** (Fuel, Minerals and Metallurgical Engineering) and **Prakrit Raj** (Computer Science Engineering) made a podium finish with the third position and a cash prize of ₹ 50000.

INNOVATIVE LEADER TALK SERIES

- Innovative Leader Talk Series 1 (ILTS 1.0) was organised on **Linking Innovation with Productivity & Skill Development** with Mr Manish Kumar, MD & CEO, National Skill Development Corporation.
- Innovative Leader Talk Series 2 (ILTS 2.0) was organised on **Best Innovative Practices in the context of Australian Mining** with Mr Kumar Animesh, Manager Integrated Planning at BHP in Brisbane, Australia.

DIALOGUE SERIES & PANEL DISCUSSION WITH STUDENTS

- Dialogue Series: "Dialogue IIT (ISM) @2026: March towards Innovation" held in Aug, 2020.
- Dialogue Series: "Impact of COVID-19 on research and academia: Threats, Challenges and Solutions" held in Oct, 2020.
- Panel Discussion: "Atmanirbhar Bharath: Vocal for Local, Make in India for the World" held in Oct, 2020.

ALUMNI SPEAK

YOUR ALMA MATER IS LISTENING, YOUR MESSAGE:

SHRI ATUL ARYA
B.TECH (PE, 1978)
CURRENT COMPANY- IHS MARKIT
POSITION: CHIEF ENERGY STRATEGIST,
BOSTON



Q: Why do you love your Alma Mater?

A: Long lasting friendships I developed and the education I received.

Q: How do you remember your Alma Mater?

A: A great place to be!

Q: Your Alma Mater is Listening.
Your Message:

A: The premier academic institute in India to build country's sustainable future.

SHRI PUSHKAR THAKUR
B.TECH (MECH ENGG, 2003)
CURRENT COMPANY- LOFTUSLANE CAPITAL PARTNERS
POSITION: FOUNDER & MD SYDNEY AUSTRALIA



Q: Why do you love your Alma Mater?

A: Great memories of the times I spent there between 1999 and 2003. One of the finest thing was friendships I made for the lifetime and also a very special bond that existed on the campus. ISM equipped me for life.

Q: How do you remember your Alma Mater?

A: As a place of friendship learning and fun. Times spent deliberating life, engaging with peers, playing sports, mess culture which was a remarkable set up and most importantly one of the finest memories of my life.

Q: Your Alma Mater is Listening.

Your Message:

A: To see it do really well and assist anyone there to help with future work. I wish to see ISM break records and set global standards in education and be known for its people, culture and quality.

ACHIEVEMENT OF ALUMNUS

Congratulations!



SHRI BIBHAS MOHANTY
(AGL 1993 BATCH)

Shri Bibhas Mohanty (AGL 1993 Batch) has been appointed as the Honorary Consul of the Republic of Maldives (based in Mumbai).

Mohanty is a technocrat, entrepreneur and philanthropist. The President of India has recognised the appointment of Mr. Bibhas Mohanty in the letter dated 3rd December 2020 and the same will be published in Part 1 Section 1 of the Gazette of India. Mr. Mohanty's tenure is valid till 14th November 2023.

LAUNCH OF THE ALUMNI PORTAL

Student Alumni and International Relations Cell (SAIRC) proudly launched the Alumni Affairs Portal of Indian Institute of Technology ISM Dhanbad under the guidance of IRAA office. The Alumni Affairs Portal is going to be a one-stop destination for our alumni to Connect, Collaborate with their alma mater. The Alumni Affairs portal will be the primary mode of interaction with the alumni of our institute. The website features information and updates on various happenings around the institute ranging from events and alumni awards to projects and campaigns they can support. The portal also includes our official quarterly newsletters and blogs on various topics by dignitaries, faculty, students and student bodies. The portal also hosts features for our alumni to contact us regarding organising any events on the campus. It is with the alumni support and guidance that the institute is reaching new heights and will continue to scale larger feats.

<https://alumni.iitism.ac.in/>

CAMPUS MALL

IIT(ISM) Campus Mall is live Now! It is with great pleasure we share that the much-awaited Official Merchandise e-Store of IIT(ISM) Dhanbad is live now. The e-store is live and stocked with 30+ products in various colours and designs from t-shirts to hoodies to various other accessories.

It even facilitates customized bulk orders for events and Batch reunions. The IIT(ISM) Campus Mall will reinforce the pride and will bring back memories of unforgettable days of our alumni.

CAMPUS MALL

IS LIVE

NOW

!!!

**Our
Generous Alumni** ❤️!

'THANKS' to You ❤️ **BIG**

Generosity which never ceases to amaze us!!

The generosity of our alumni never ceases to amaze us. This generosity allows us to set up nine (09) nos. of smart classrooms and two (02) nos. of studios in the campus.



DR. PRAMOD THAKUR
1961, MINING ENGG

**MEERA AND PRAMOD
THAKUR SMART CLASSROOM**



DR. A. N. GUPTA
1966, MINING ENGG

**KAILASH
SMART CLASSROOMS**



MR. MOHINDER GULATI
1962, PE

**GULATI FAMILY SMART
CLASSROOMS**



AVINASH AHUJA
1967, PE

**PEGGY AND AVINASH AHUJA
SMART CLASSROOM**



AMRIT SAGAR CHOPRA
1961, MINING ENGG

**AMRIT SAGAR CHOPRA
SMART CLASSROOM**



HEMANTA MUKHERJEE
1968, PE

**DR. SACHIDANANDA
BANERJEE SMART
CLASSROOM**



SHIVAJI N DASGPUTA
1970, AGP

**MEERA & N N DASGPUTA
SMART STUDIOS**



YUGAL K GUPTA,
1968, PE

**GUPTA FAMILY SMART
CLASSROOM**



"I am deeply honored by this opportunity to serve my Alma Mater. I still live with very fond memories of those days in ISM From my personal experience in teaching in traditional twentieth century classrooms transitioning into smart twenty-first century classroom in the Imperial College, London – I learnt the benefits of this contemporary technology. Smart classroom not only empowers the Instructor with its modern gadgets, it also helps students' keep attention through the multiple audio-visual media access in the classroom." - Shri Hemanta Mukherjee

INSTITUTION OF JASWANT SINGH GILL MEMORIAL INDUSTRIAL SAFETY EXCELLENCE AWARD

REAL LIFE HERO

The Jaswant Singh Gill Memorial Industrial Safety Excellence Award has been instituted in the memory of Late Jaswant Singh Gill, an alumnus of the 1965 batch of Mining Engineering.

He was a Braveheart Mining Engineer, who saved the lives of 65 miners, who were trapped due to inundation in the underground mine of Mahavir Colliery at Eastern Coalfields Limited on 13 November, 1989. Shri Gill was a rescue-trained person and designed a 2.5m slim steel rescue capsule to pull the trapped miners out within a short period of time through a well, which was drilled connecting the underground location of trapped miners to the surface. Shri Gill, as the additional Chief Engineer of the mine, volunteered himself to bring the miners back and entered the inundated mine drilled, and rescued the trapped miners in adverse conditions.



Late Shri. Jaswant Singh Gill
(B.Tech, ME ,1965)

He was a recipient of the Sarvottam Jeevan Raksha Padak, awarded by the President of India in 1991. A lifetime achievement award from Coal India Limited was also bestowed on him.

Jaswant Singh Gill Memorial Industrial Safety Excellence Award aims to promote innovative technological developments and applications under Atma Nirbhar Bharat Abhiyan for improving safety standards in Indian industry.

The award comprises a plaque, a citation, and a prize worth ₹50,000.

In Memoriam: In Our Hearts Forever!



PROF. R VENUGOPAL

Prof Rayasam Venugopal left his earthly physical existence at the noon of September 03, 2020. He succumbed to his residence inside the campus after a cardiac arrest. He was 65.

His journey began on 28th July 1955 in Tamil Nadu. He moved into ISM in 1982. His career as a teacher and researcher came full circle in 1995, when he received the National Mineral Award from the Ministry of Mines, Govt. of India. He rendered his services to the institute for more than 38 years in various capacities.

He held several administrative positions such as Head of the Department, as Dean (Research & Development), and as Chairman JEE. Although with an Engineering background, he consumed philosophy, language, and letters. He brought all of the people around him his love for science, art, life, and literature. His wife and three daughters survive him. He will be missed by all who had the pleasure of knowing him!

On behalf of the entire IIT (ISM) Community, we extend our heartfelt condolences to his family, colleagues, loved ones, and friends. We pray the Almighty grants his family, colleagues, loved ones, and friends the courage and fortitude to bear this loss, which is immense and irreparable. May his soul rest in perfect peace.

- **Shri Gunvant Nagar, ISM 1961, Applied Geophysics**, left for his heavenly abode in Las Vegas.
- **Shri S M Sharma, ISM 1955, Mining**, left for his heavenly abode on 24.7.2020. He served in SAIL for 11 years. He rendered his services as GM (Sales & Marketing) in BCCL, CCL, & CIL.
- **Mr. Sandeep Kumar AEE(D), Mechanical Engg, 2019 batch**, who worked with ONGC met with an accident on a drilling rig in Rajahmundry and lost his life. It is indeed unfortunate to lose an alumnus with immense potential at such an early age.
- **Miss Ahana Sadhu, M. Tech. ECE 2020 Batch** left for her heavenly abode on 8 Dec, 2020 at Kolkata due to Brain hemorrhage.

Bringing laurels to IIT(ISM) with their astounding performance ...our young achievers!

ADOBE ANALYTICS CHALLENGE 2020

Team Alphas won the Adobe Analytics Challenge with a prize money of USD 35000 beating teams from Chicago Booth, Fashion Institute of Technology (FIT), National University of Singapore, University of California (Los Angeles), and the University of Utah in the finals.

The Alphas are: **Pooja Patwari (EIE)**, **Parth Hetamsaria (ME)**, and **Jahnvi Sharma (ESE)**



**Heartiest
Congratulations to
our
Young Achievers !!**

- **Dr Roshan Kumar Singh**, Deptt. of AGP, has been offered a Post Doctoral Fellowship at the prestigious Earthquake Research Institute, The University of Tokyo, Japan.
- **Mr. Sagnik Biswas** received the prestigious PMRF (Prime Minister's Research Fellowship).
- **Mr. Anupam Patel**, (Integrated M.Tech) Deptt. of AGP has received the prestigious Shastri Research Student Fellowship (SRSF) 2020-21 for a project entitled "Simulating of Earthquake Ground Motions" with Prof. Hadi Ghofrani, Adjunct Research Professor, Western University.
- **Mr. Sanchit Chourasiya**, Dept. of Mechanical Engineering made it to ETCampusStars Class 2019-20, an initiative by The Economic Times.
- **Varshil Desai, Vishnu PS, Pawan Kataria and Deepak Kumar** of M.Tech 2020-2022, emerged as the First Runners Up in "Industrial Design Problem" an event under Gravitas'20, an International techno-management knowledge carnival, organized by Vellore Institute of Technology(VIT).
- **Akash Sahu, Rahul Kumar Sinha and Saurav Jha**, Dept. of Management Studies secured top positions in an online quiz on Careers in Securities Markets conducted by National Institute of Securities Markets (NISM).
- **Mr. Pratik Raj**, IIT (ISM) Dhanbad), **Mr. Hemant Paliwal**, IIT Roorkee and **Mr. Yogesh Kumar**, IIT Dharwad secured the runners up position at CII Post-Harvest & Logistics Virtual Hackathon, which was supported by the Ministry of Food Processing Industries (MoFPI).
- **Mr. Mihit Raj Keshav, Mr. Sourav Sahu and Mr. Ritesh Manna**, Deptt. of Electronics Engineering won the TechE Theme (Cognitive Automation) in TechnoUtsav 3.0 organized by Deloitte India.

KPMG'S IDEATION CHALLENGE (KIC) 2020



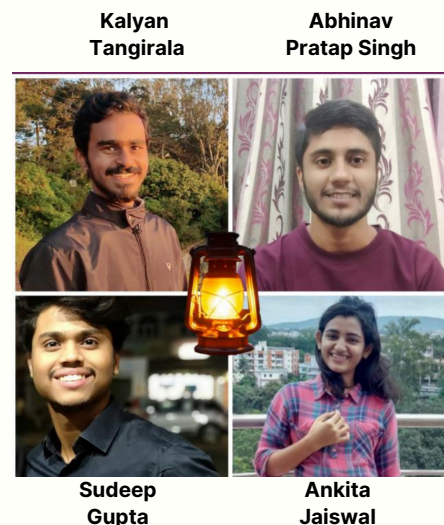
A PROUD MOMENT!

IIT(ISM) made it to the top honour in Netherland based KPMG's (Klynveld Peat Marwick Goerdeler) Ideation Challenge (KIC) Global Student Competition by its meritorious performance. Team, 'Navacharitam' of IIT-ISM, Dhanbad, led by Sanchit Kumar was crowned champions of KPMG's 'KPMG Ideation Challenge' (KIC) 2020 for developing a solution that brings disruptive innovation to the mining industry. **Sanchit Kumar, Varnika Kumari, Parth Hetamsaria and Srajan Gupta** are the young achievers who brought laurels to the Institute.

SIXTH POSITION IN SWITCH ENERGY INTERNATIONAL CASE COMPETITION 2020

Team "Lalten" made it to the finals of the Switch Energy International Case Competition 2020 organised by Switch Energy Alliance and stood 6th in the event where more than 250 teams registered from all the inhabited continents of the world.

The team comprised of **Sri Kalyan Tangirala, Sri Abhinav Pratap Singh, Sri Sudeep Gupta, Ms. Ankita Jaiswal** of Integrated MTech, Dept. of Applied Geophysics. Laten was the only team from Asia to make it to the finals, winning a cash prize of **500 USD**.



UPSC RANK HOLDERS

- **Ms Maninderjit Kaur**, B.Tech (CSE, 2015): (Rank 246)
- **Mr Prashant Sharma**, B.Tech (EE, 2012): (Rank-247)
- **Mr Sanjiv Kumar**, B.Tech (EE,2014): (Rank- 365)
- **Mr Praveen Pushkar**, B.Tech (PE, 2015): (Rank:454)
- **Mr Chandra Shekhar Mehra**, B.Tech (PE, 2015: Rank-643)



- **Mr. Anshu Kumar**, Dept. of Civil Engineering
- **Mr. Shivam Prajapati**, Dept. of Electrical Engineering
- **Mr. Shikhar Suman**, Dept. of Electrical Engineering
- **Mr. Akash Kumar**, Dept. of Mechanical Engineering

Students received a Medal, a Certificate & Cash Prize money of Rs. 80,000/-

ACHIEVEMENTS OF FACULTY MEMBERS



Prof. Ravi Gangwar, Associate Professor, Dept. of Electronics Engineering has received the Institution of Electronics and Telecommunication Engineers (IETE)- **Smt. Ranjana Pal Memorial Award (2020)** for significant achievements in the field of RF Communications, Electromagnetics, Antennas, Microwaves (Circuits, Devices, etc.), and high-frequency electronics, during the last 05 (five) years.



PROF. SHALIVAHAN
DEPT. OF APPLIED GEOPHYSICS

- Society of Exploration Geophysicists, USA has conferred on Prof Shalivahan the **Outstanding Educator Award 2020** for excellence in Geophysics Education. He is the first Indian working in India to be conferred with this prestigious award.
- Prof. Shalivahan has also been awarded with **VAJRA (Visiting Advanced Joint Research) Faculty scheme** by DST under SERB. Dr. Andre Revil from Univ. Savoie Mont-blanc Isterre (CNRS), Paris, France will be hosted as Vajra faculty.



Prof M K Singh, Dept. of Mathematics & Computing has been elected as State Chief Education Advisor-Jharkhand by Yog Social Society (YSS), Lucknow for promoting, helping and mainstreaming the underprivileged children of Jharkhand.

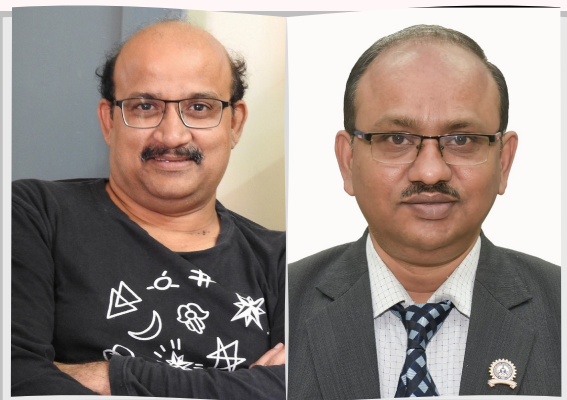
INDER MOHAN THAPAR RESEARCH (IMTR) AWARD



Prof. Aditya Kumar, **Ms. Kalpita Nath** and **Ms. Poonam Chauhan** of Deptt of Chemical Engineering received the Inder Mohan Thapar Research Award for their Research Work, "**Silver nano particles based superhydrophobic anti-viral coating on cloth**", which is a breakthrough research for **COVID-19**.

Prof. Aditya Kumar received the award on behalf of his team on the Foundation Day celebration held on 09 Dec, 2020.

FRSC



Prof. Parthasarathi Das
Dept. of Chemistry

Prof. Ajay Mandal
Dept. of Petroleum Engg

GANDHIAN YOUNG TECHNOLOGICAL INNOVATION APPRECIATION AWARD



Prof. Ejaz Ahmed, Dept. of Chemical Engineering received the Gandhian Young Technological Innovation Appreciation Award.

The award was presented by SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions), a developmental voluntary organization aiming to strengthen the creativity of/at/for grassroots communities, including individual innovators.



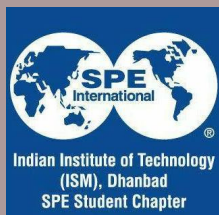
Prof. Raghavendra Chaudhary,
Dept. of ECE

Prof. Raghavendra Chaudhary, Dept. of Electronics Engineering has received:

- IETE - IRSI (83) Young Scientist Award, 2020 for his outstanding contribution in the field of Antenna Design & Application.
- Indian National Academy of Engineering (INAE) - Young Engineer Award, 2020 in recognition of his notable contribution to the design and development of compact metamaterial antennas and MIMO cognitive radio systems for mid-band 5G Application.

WEBINARS

SPE IIT ISM STUDENT CHAPTER



- **SPE Ambassador Lecturer Program:** Dr. Manas Pathak, the Global AI Lead for Oil & Gas at the Intel Corporation delivered a talk on "Digital Transformation in the Energy Market" on 12th Nov, 2020.
- **SPE Distinguished Lecturer Program:** Mr. Hitesh Mohan, Vice President of INTEK INC, delivered a talk on "Resiliency of Petroleum Infrastructure" on 26 Sept, 2020.
- Hosted a webinar on "Application of Machine Learning in the Oil and Gas Industry". The talk was delivered by Prof Siddharth Misra, Associate Professor, Texas A&M University.
- Conducted a 4-week workshop on "Reservoir Simulation and Field Development" in collaboration with Schlumberger from 23 July onwards.
- In collaboration with ONGC Bokaro, organised a case study competition on CBM gas well testing in association with IChE Regional Center, Dhanbad.
- In association with Fast Forward India, organised 'Energy4me' on 18th Oct, 2020.
- On 5th Aug, 2020 organised a webinar on "Practical aspects of waterflooding and EOR". The talk was delivered by Prof. Ganesh C. Thakur Professor of Petroleum Engineering, Director of the University of Houston Energy Industrial Partnership, and former Society of Petroleum Engineers International President (2012).
- In association with IChE Regional Center Dhanbad, conducted a webinar on "Application of Floating Storage and Regasification Unit (FSRU) and its Advantages over Land-Based LNG Facilities" in August, 2020 Mr. Ashanendu Mandal, Former Chief General Manager at Oil and Natural Gas Corporation - ONGC, delivered the talk.
- Organized a webinar on "Production Optimization" on 1 August 2020.
- In association with IChE Regional Centre Dhanbad organized Society of Petroleum Engineers International Ambassador Lecture Program on "The Skills and Knowledge that Oil Industry needs from its future Leaders". Mr. Abhijeet Anand, Commercial Engineer, Schlumberger delivered the talk.

IIT DHANBAD ENTREPRENEURS' GLOBAL MEET-II

The **Entrepreneurs Community** of IIT(ISM) Dhanbad organized the "IIT Dhanbad Entrepreneurs' Global Meet-II" on 19th September 2020 with a theme of "QuidProQuo - Lend a Hand, Grab a Hand". The primary objective of the meet was to provide students an opportunity to work with experienced Entrepreneurial Alumni. It consisted of interactive sessions and a panel discussion session on Building a Startup with distinguished ISM Alumni.

ACM STUDENT CHAPTER (ASSOCIATION FOR COMPUTER MACHINERY)



ACM Student Chapter (Association for Computer Machinery) hosted a "FAANG series".

- **First Session of FAANG series:** Ms. Anjali Viramgama, University of Maryland, and currently an SWE intern at Facebook on the 4th of July, 2020 was Live on Youtube for QnA session - 'How I got intern at Facebook'.
- **Second Session of FAANG series:** Mr. Jayant Sharma, Software Engineer at Google was Live on Youtube for QnA session - How I got job at Google.
- **Third Session of FAANG series:** Mr. Sakshi Gopal, Software Engineer at Facebook, California was Live on Youtube for QnA session - How I got job at Facebook.

- The **Department of Computer Science and Engineering** organized One Week Webinar on "Cyber Security Techniques with Application" sponsored by ISEA Project Phase-II, MeitY during 05-09 October 2020.
- The **Department of Applied Geophysics (AGP)** under the banner of Geophysical Society organised a comprehensive AlumniWebinarSeries on Hydrocarbon Exploration from 27th July - 2nd August 2020. All esteemed speakers were from renowned Oil and Gas organisations and institutes.
- The **Department of Physics** conducted a web-seminar series from 29th June 2020 on the topics related to the broad area of history-evolution and applications of Physical science.
- The **Department of Chemistry** in association with the Royal Society of Chemistry organized a two-day webinar "Current Challenges in Experimental Physical Chemistry" from 31 July-01 August, 2020.

ARKA- ASTRONOMY CLUB



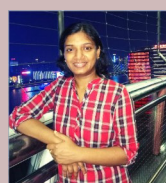
DR. R. V. RAMANAN,
ADJUNCT PROFESSOR,
INDIAN INSTITUTE OF SPACE
SCIENCE & TECHNOLOGY (IIST)



Team ARKA organized three webinars named Primus Talks 2020 during the Pandemic.

FIRST SESSION- Delivered session on "Space Mission Design & Optimisation" on 12 September 2020.

DR. JESSY JOSE, ASSISTANT
PROFESSOR, INDIAN INSTITUTE OF
SCIENCE EDUCATION AND RESEARCH
(IISER), TIRUPATI



SECOND SESSION- Delivered session on "Star & Planet Formation - A brief overview" on 19 September 2020.

DR. RAJESH SADANANDAN,
ASSISTANT PROFESSOR,
INDIAN INSTITUTE OF SPACE
SCIENCE & TECHNOLOGY(IIST)



THIRD SESSION- Delivered session on "Aerospace Propulsion" on 27 September 2020.

ON CAMPUS: NEW FACULTY MEMBERS

PROFESSOR



Tapan Kumar Sengupta
Visiting Professor
Dept. of Mech Engg



Pasupati Sah
Visiting Professor
Dept. of PE

VISITING ASSISTANT PROFESSOR



Singdha Ghosh
Dept. of FMME



Aditi Sengupta
Dept. of Mech Engg



Tharun Kumar Reddy Bollu
Dept. of ECE

ASSISTANT PROFESSOR



Ajay Bhandari
Dept. of Mechanical Engg



Rahul MR
Dept. of FMME



Soumya Bagchi
Dept. of Physics



Aparna Tripathi
Dept. of FMME



Zafar Alam
Dept. of Mechanical Engg



Madhumanti Bhattacharya
Dept. of FMME



Sarthak Sambit Singh
Dept. of Mechanical Engg



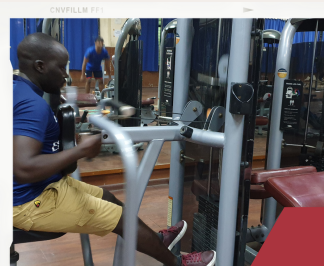
Deepika Sharma
Dept. of HSS

SPORTS



Fit India Freedom Run Certificate awarded to IIT(ISM) for organising Fit India Freedom Run under the aegis of Fit India Movement from 25th August to 2nd October 2020 as per the instruction of Ministry of Education (MoE).

The Institute has effectively implemented the two fitness drives launched by the Govt. of India: **FIT INDIA THEMATIC CAMPAIGN & FIT INDIA CYCLOTHON** from 20 Nov-2020. This campaign motivates one to participate in games, Yoga activities and cycling for half an hour daily.



GYMNASIUM



BADMINTON

**FITNESS KA DOSE
AADHA GHANTA ROJ**



KARATE



SQUASH

CAMPUS EVENTS

INDEPENDENCE DAY

74TH Independence Day was celebrated virtually and the National flag was hoisted by **Prof J K Pattanayak**, Deputy Director in the Oval Garden.



HINDI PAKHWADA

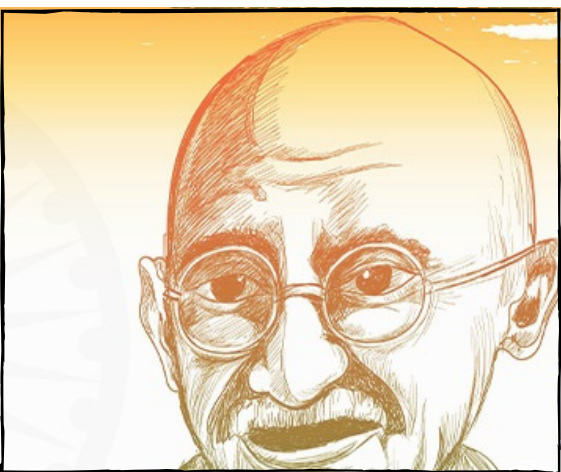
As per the guidelines of the Govt of India, the Institute observed **Hindi Pakhwada from 14-29 Sep, 2020**. During Pakhwada, various programmes like Essay writing competition in Hindi, Recitation, Extempore Speech, etc. were organized for students & employees so as to encourage everyone in using Hindi as language of official procedure.

151 BIRTH ANNIVERSARY OF MAHATMA GANDHI

IIT (ISM) organized a film festival to mark the 151st Birth anniversary of Mahatma Gandhi from 26th September to 2nd October, 2020.

Films screened during the festival were-

1. **Gandhi** by Richard Attenborough
2. **Gandhi, My Father** by Feroz Abbas Khan
3. **Hey Ram** (Kamal Hassan)
4. **The Making of Mahatma** (Syam Benegal)
5. **Maine Gandhi ko Nahi Mara** (Jahnu Barua)
6. **Mahatma Gandhi, Dying for Freedom**



VIGILANCE AWARENESS WEEK: As per the guidelines of the Ministry of Education, the Institute observed Vigilance Awareness Week from 27 Oct-02 Nov, 2020.

RASHTRIYA EKTA DIWAS: To mark the birth anniversary of Sardar Vallabhbhai Patel on Nation Unity Day (31.10.2020), employees took **RASHTRIYA EKTA DIWAS PLEDGE**.

CONSTITUTION DAY/SAMVIDHAN DIWAS was observed on 26th November 2020 by reading of the preamble to the Constitution of India.

WORLD OZONE DAY **ENVIS Centre - RP, Deptt. of ESE,** observed **World Ozone Day** on 16th Sep, 2020 by organizing several online events.



Prof Prem Vrat, Chairperson, Board of Governors, IIT(ISM)

interacted with the faculty members of the institute on 28th October, 2020. His talk was highly motivating and illuminating as he touched upon varied facets of the teaching profession, role of teachers in the era of technology, and the need to evolve pedagogies that enhances learning. The session was extremely exhilarating.



ON CAMPUS: DURGA PUJA CELEBRATION

Despite the challenges posed by COVID-19, IIT(ISM) celebrated **DURGA PUJA- 2020** with great zeal. This year the festival was celebrated in eco-friendly fashion and maintained all the protocols of COVID-19.

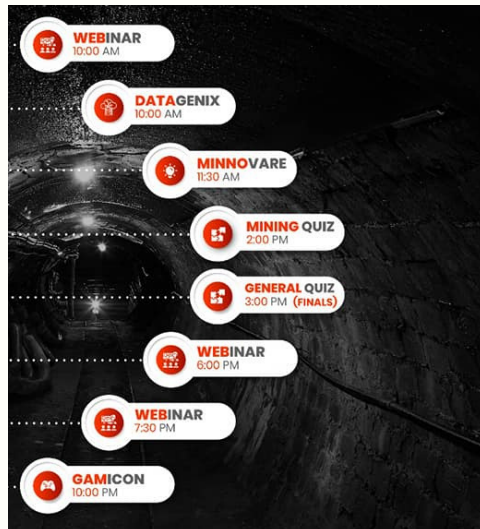


KHANAN-2020

Khanan 2020, the Annual Geo-Mining Fest was organized during **2-4 Oct, 2020**. The Chief Guest for the ceremony was **Mr. Robert Schafer**, President of the Society for Mining Metallurgy. **Mr. Subhasis Das**, Managing Director, Sandvik Mining and Rock Technology India, and **Mr. Dave Kanagy**, Executive Director Society for Mining, Metallurgy, and Exploration, were the Guests of Honour. **Prof. Rajiv Shekhar**, Director, IIT(ISM) in his talk highlighted the importance of current innovations & start-ups involved in research. **Prof. Dheeraj Kumar**, Professor, ME & Dean (IRAA) mentored the event organizers. All the events were led by **Mr. Satyam Kumar**, President, SME, IIT(ISM) Student Chapter.



KHANAN- DAY-1



KHANAN- DAY-2



KHANAN- DAY-3

95TH FOUNDATION DAY

The **95th Foundation Day** of the Institute was celebrated on 09 December, 2020 in virtual mode. **Prof J K Pattanayak**, Deputy Director welcomed the dignitaries and audience. **Prof. Rajiv Shekhar**, Director presented a report on the Institute's activities and recent initiatives undertaken. The Presidential Address was delivered **Prof. Prem Vrat**, BoG, IIT(ISM) Dhanbad. **Mr. Binay Dayal**, Director (Technical), Coal India Limited delivered the Foundation Day Lecture.

Among the other distinguished speakers were **Shri V.K Arora**, Chief Mentor KCT Group and **Mr. Jerry Andersson**, MD, Epiroc Mining India Ltd.

Prof. Rajni Singh, Associate Dean, Media & Branding Cell was the Convener of the programme.

Those who completed 25 long years serving the Institute were felicitated on this day. The recipients of the long service award were:

1. **Prof Somnath Pan**, Deptt. Electrical Engg
2. **Dr. UP Sharma**, Technical Officer, Deptt. of Pet Engg
3. **Shri Subhas Gope**, Sr. Asstt in the Accounts
4. **Shri Dilip Kr. Dubey**, Lab Attendant in Electrical Engg
5. **Smt. Bijay Lata Devi**, Mazdoor, Central Library



Prof Aditya Kumar & his research scholars, **Ms Kalpita Nath** & **Ms. Poonam Chauhan** of Deptt. of Chemical Engg. received the Inder Mohan Thapar Award for their research on **silver nanoparticles based superhydrophobic anti-viral coating**, which is a breakthrough research for COVID-19. Prof. Aditya Kumar received the award on behalf of his team.





Food Packet
distribution
to homeless

SOCIAL
INITIATIVES

Distribution of
hygiene kit

Clothes
Donation
Drive



IN NEWS!!

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IIT (ISM) Dhanbad

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