



किर IITH

భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

the crowning glory

A quarterly e-newsletter of IITH | Volume 4 | Issue 3 | Jul - Sep 2022

#ClimateChange Research @IITH



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Dear Readers,

Hope you are doing well!

Encouraged by your continuous support, we are pleased to present the 12th issue of किराIITH.

Alike every time, this issue of किराIITH is also being dedicated to one of the thrust research areas of IITH. We are glad to release **eleven theme-based issues of किराIITH**, namely, COVID-19, AI, Healthcare, IITH-in-Japan, 5G & Next-Gen Tech, Nano-Tech, Energy & Integrated Computational Engineering, Additive Manufacturing, and Smart Mobility.

Following this precedence, किराIITH is back with yet another critical area of research at IITH "**#Climate Change Research @IITH**".

We hope this issue of किराIITH will give you a stimulating experience about exceptional research work being carried by the IITH fraternity in the theme area.

This issue of किराIITH is released on - **World Students' Day - October 15** to mark the birth anniversary of the missile man of India Dr A P J Abdul Kalam, underlining the importance we give to Invent & Innovate in Technology for Humanity (IITH) to ensure IITH is "**A Dream Destination for Students, Academicians, Researchers & Collaborators**".

किराIITH will be back next quarter with another trending research area. So, stay connected. We wish everyone a safe and healthy stay.

Have a great year ahead...

Enjoy reading!



Prof C Krishna Mohan
(Dean - Public & Corporate Relations)
{Editor-in-Chief}



Prof Deepak John Mathew
(Head of the Department - Design)



Dr Mudrika Khandelwal
(Dean - Alumni Relations)



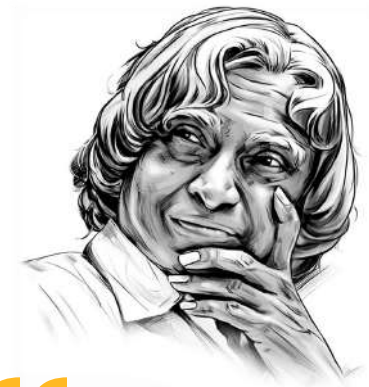
Ms Ankita Roy
(Assistant Professor, Department - Design)



Ms Mitalee Agrawal
(Public Relations Officer)



Mr Ekshan
(Media & PR Head, Student Gymkhana)



"If you want to shine like a sun, first burn like a sun"

- Dr APJ Abdul Kalam

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**Adversity always
presents opportunities
for introspection**

- Dr APJ Abdul Kalam

Dear Friends,

I hope you are doing great in all the aspects and dimensions of life,

On this glorious occasion of disseminating the 12th issue of the Newsletter, I am glad to share that IIT Hyderabad has improved its overall NIRF Rankings from 16 in 2021 to 14 in 2022. For the 7th consecutive year, IITH has maintained its position within the Top 10 ranks among the technical institutes in the country and as the best among the second-generation IITs. "Today, IITH is a brand of its own and is destined to attract a pool of highly talented students and faculty members to invent & innovate in technology for humanity and make IITH 'A Dream Destination' for every Academician, Researcher & Industry.

In the context of designing the courses that transform technical research to cater to the basic needs of humanity, the Department of Biomedical Engineering, Physics, under the aegis of the Centre of Interdisciplinary Program, IIT Hyderabad, launched an AERB (Atomic Energy Regulatory Board) approved three years Master of Science (MSc) Program in Medical Physics in collaboration with Basavarakam Indo American Cancer Hospital and Research Institute (BIACH&RI). The program aims to provide world-class 'Medical Physicist' specialist training in the concepts and techniques of applying physics in medicine. Department of Electrical Engineering, in line with India's Semiconductor Mission to promote talents from Chip to Startups, has launched four years BTech program in Electrical Engineering with a focus on IC (Integrated Circuit) Design & Technology.

Collaborations lead to more innovation. IITH has signed a MoUs with Greenko to set up a School of Climate Change & Sustainability; with NHA1 to set up a CoE on Highway Infrastructure Building; and with Beyond Next Ventures India Pvt Ltd (BNVI), Bangalore, headquartered in Tokyo, Japan, to extend academia and industry cooperation.

On July 2nd, Hon'ble Union Education Minister Shri Dharmendra Pradhan laid the Foundation Stone for BVR Mohan Reddy School of Innovation & Entrepreneurship and inaugurated Technology Innovation Park and Research Centre Complex (RCC). The MoU between Greenko and IITH to set up a School of Climate Change & Sustainability got exchanged in the presence of Honourable MoE. Another monumental day in the journey of IITH is when the Hon'ble Union Minister of Science & Technology, Dr Jitendra Singh, inaugurated the TiHAN Testbed for Autonomous Navigation at IITH.

The Campus was as vibrant with vivid colours of celebration of its 11th Convocation (20 Aug) in the physical mode for the first-time post-pandemic in the gracious presence of Prof Subra Suresh, President, NTU Singapore, as Chief Guest of the event and awarded 884 degrees. The first Honorary Doctor of Science of IITH was awarded to Prof Subra Suresh on the occasion.

The research excellence awards ceremony 2022, with the support of the IITH Alumni Association, was conducted online. Japan External Trade Organization (JETRO) and IITH co-hosted the fifth edition of the job fair, "JAPAN DAY." It was overwhelming to host 10 Japanese companies in the in-person mode for the 1st time post-pandemic.

The vibrant and exciting MILAN 2022 Championship successfully concluded at IITH, with Charaka emerging as Champion of Champions.

Following our instinct for Social Good, IITH has organized Cancer Awareness Talk & conduct free Cancer Screening on Campus to promote early detection & better cure in association with Malla Reddy Narayana Hospital. Additionally, we have installed a projector & system in the IITH-adopted villages wherein IITH's Faculty, Staff & Students are offering voluntary Mathematic & Science classes for High-school students to inspire them to aspire high in their life.

One more special moment to be framed in the historical journey of IITH is when the Chemistry Department Building was inaugurated by Professor Goverdhan Mehta, University Distinguished Professor & Dr Kallam Anji Reddy Chair, at the University of Hyderabad on August 18th.

In a quest for a lavish lifestyle, growth, and progress, we unconsciously leave a carbon footprint that leads to climate change. Now it is time we must take the stand to ensure making this planet is sustainable for the next generations. In this scenario, IITH integrates academic knowledge with practical knowledge bringing scientists, engineers, practitioners, and students together to explore the reasons and solutions for climate change.

I am sure this issue will answer many such aspects & leave each one of you with a thought to make your Individual Social Contribution (ISR) and ensure a sustainable ecosystem.

-Prof B S Murty

Alumni plays a key role in building the institute and its reputation

KID: 20220301

Dr Mudrika Khandelwal

For all our national institutes of eminence, it is a well-known fact that the Alumni have always played a key role in building the institute and its reputation. Likewise, we at IIT Hyderabad have identified the Alumni Relations office as one of the key pillars of our institute, and the office of Dean Alumni Relations has recently been established.

Our Mission: We connect alumni to the university and each other, build traditions, foster student and alumni leadership, serve the diverse needs and interests of our community, and create opportunities for investment in IIT Hyderabad for its advancements.

Since assuming the office, we have initiated several outreach activities to welcome the alumni back to their alma mater and to professionalize the engagement. Some of those are

- A monthly digest for alumni called Alma Connect
- Alumni Ecards to make it easy for entry & accessing the facilities of the campus
- Alumni email ids to receive the latest updates from the institute
- Department-wise alumni engagement faculty
- IITH awards to alumni achievers
- Fundraising campaigns

Meet & greet events:

The Office of Alumni Relations is keen on reaching out to its alumni. We are hosting the Meet & Greet events in various cities and would love to meet our alumni who are available in those cities.

It is an informal meeting of around half a day to get to know each other, updates from IITH and the office of alumni relations, chit chat, past memories, etc., on brunch/ high tea, depending on the majority of alumni gathering for the event.



Moments to cherish-Alumni Meet@IITBombay

We have conducted events with alumni associations in Hyderabad, Bangalore, and Mumbai, and the next is planned for Delhi.

Alumni talks

Foster talk series:

Alumni Cell and the Media Council host the FOSTER series to strengthen the Institute-Alumni relationship. The Foster 2022 is an initiative by the Media Council and Alumni Cell to spotlight Institute's alumni who made their path and soared high through an Alumni Talk Series. We firmly believe that one who has experienced the ups and downs of a journey is the best guide for someone new or about to start the same journey. Sharing the challenges one faces in their exploration of "becoming" can undoubtedly help others prepare well for theirs.

And for an Institute, it is always a pleasure and a moment of pride to see the alumni sharing the many stepping stones they achieved in their careers and soaring high in the sky.

The FOSTER series will include a variety of themes which are as follows:

- Business and Entrepreneurship
- Technology and Innovation
- Trading and Investments
- Start-ups
- Higher Studies



Alumni contributed excellence awards

IIT Hyderabad's Young Alumni instituted Research Excellence Awards to promote fellow students. On August 27, 2022, the research excellence awards ceremony 2022 was conducted with IITH Fraternity & Alumni together on board in an online mode. These awards are given to our students who have excelled in their research in the academic year 2021-22.

Decennial year:

This year marks ten years of the first graduating batch. We celebrate this in a big on 17-18 December, along with the institute alumni day. Class of 2012 also plans to create a legacy through the development of the institute infrastructure.

In the upcoming period, we intend to carry out more outreach activities such as reunions, alumni day, decennial celebrations, and mentorship program. Even without any special event or invitation, we would love to have our alumni visit us on the campus, have a brief 'chit-chat,' witness our campus development, and have a simple 'chai pe charcha.' The growth of our campus on all fronts not just relies on the people currently here, but we would also love to hear and learn from alumni experiences to make IIT Hyderabad the best in our nation.



Alumni Meet @Hyderabad

Dr Mudrika Khandelwal
{Dean (Alumni Relations) &
Associate Professor
Department of MSME}
IIT Hyderabad

Dept of Climate Change, provides a much-needed platform to explore Climate Change and Sustainability in an all-encompassing way.



KID: 20220302

Dr Pritha Chatterjee

As one of the biggest long-term and pressing societal challenges facing human beings in the twenty-first century, climate change has exerted a negative effect globally, and climate is still changing. The term "climate change" is defined by NASA's glossary as well as by the United Nations as "long-term shifts in temperatures and weather patterns." No matter how the phrase is defined, there is widespread agreement within the scientific community that human activities are, in fact, impacting the climate system.

Climate change can affect our health, ability to grow food, housing, safety, and work. Some of us are already more vulnerable to climate impacts, such as people living in small island nations and other developing countries. Conditions like sea-level rise and saltwater intrusion have advanced to the point where whole communities have had to relocate, and protracted droughts are putting people at risk of famine. It's now been almost a year; we left COP26 with "1.5" on life support. Since then, its pulse has weakened further. Greenhouse gas concentrations, sea level rise, and ocean heat have broken new records. The world is in the danger zone from floods, droughts, extreme storms, and wildfires. No nation is immune. Yet we continue to feed our fossil fuel addiction.

We now have global frameworks and agreements to guide progress, such as the Sustainable Development Goals, the UN Framework Convention on Climate Change, and the Paris Agreement. Three broad categories of action are: cutting emissions, adapting to climate impacts, and financing required adjustments. Secretary General of the UN, in his last speech, mentioned the importance of Mitigation, Adaptation, Finance, and Loss & Damage. He also mentioned that the coming decade is the decade of Climate Action. Switching energy systems from fossil fuels to renewables like solar or wind will reduce the emissions driving climate change. But we must start right now. While a growing coalition of countries is committing to net zero emissions by

2050, about half of emissions cuts must be in place by 2030 to keep warming below 1.5 °C. Fossil fuel production must decline by roughly 6 per cent per year between 2020 and 2030. The increasing scale of human activity on the planet has led to the emergence of sustainability as a central aim for society. Today, sustainability is an issue of concern.

Primarily because of the mounting evidence that suggests that increasing scale of human activity on our planet Earth is following an overwhelming trajectory. Highlighting the magnitude of this problem, researchers have suggested that supporting today's population, consuming resources at the same rate as we are now, "would take four to five more Earths." The rising significance of sustainability research is reflected in the expanding size of the literature that document it. A query of "sustainability" in a recognized scholarly database, Scopus, turns up more than 20000 review papers itself. Within this literature, one may identify a plethora of goals, indicators, and targets that are intended to facilitate a shift toward sustainability. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go together with strategies that improve health and education, reduce inequality, and spur economic growth - all while tackling climate change and working to preserve our natural resources.

With less than a decade left to realize the SDGs, India has set 17 targets, including climate efficient and sustainable infrastructure, sustainable environment, renewable energy, safe sanitation, and drinking water, among others; that have a deadline this year when we celebrate our 75th Independence Day.

On indices like GHG emissions, energy use, and climate policies India has ranked high in a report on Climate Change. However, even well

performing states in India have a high score on Climate Vulnerability Index. For example, the Cyclone Amphan is a lesson on the compounding effects that extreme weather events can have when they co-occur with any other disaster. It was estimated to have a 13 billion dollar cost of damages; 4.9 million people were displaced with 100 + deaths.

It is an ambitious but necessary task to comprehensively address these growing concerns, and the Department of Climate Change, along with the GreenKo School of Sustainability at IIT Hyderabad, provides a much-needed platform to explore Climate Change and Sustainability in an all-encompassing way. The department and the school aid to integrating academic knowledge with practical knowledge while bringing together scientists, engineers, practitioners, policymakers, and students, who shall help to reshape our future. The key will be to foster an interdisciplinary space of inquiry that incorporates sustainability into climate, Sciences, technology, and engineering-based design approaches, as well as social and policy research. This merges perfectly with our plan at IITH, to become a leading institute in bringing a synergy among these key areas.

Research from the department has been focused on Climate Modeling, Climate Mitigation, Climate Policies, and Governance, and Sustainable Development. At this moment, we have several research projects, notably on renewable energy, sustainable infrastructure, and smart cities, and have been actively publishing in internationally reputed Journals. We thrive to continue the trend and achieve even more through practical and state-of-the-art research and technological contributions. Let us all work together to achieve a cleaner, greener, and a sustainable India for our future generations

Dr Pritha Chatterjee
(Head of the Department &
Assistant Professor)
Department of Climate Change

Education meets Industry A Win-Win Synergy

KID: 20220303

Dr Rambabu Paravastu



IIT Hyderabad (IITH), a 2nd generation IIT, after tying-up with leading academic institutions around the globe especially Japan with more than 20 universities, has now collaborated with Greenko Group, a city-based India's leading energy transition and decarbonisation solutions' provider with renewable energy generation, energy storage and zero carbon molecules' manufacturing assets.

With an aim to accelerate science, technology, & policy linkages to catalyze effective & just global sustainable energy

transition and industrial transformation, both the education institution and the industry with its matching aspirations and strong belief that the partnership must extend to education,

research, and entrepreneurship beyond technology development, has come together to set up an independent "Greenko School of Sustainable Science & Technology (GSSST)" at IITH campus.

IITH with its many MoUs offers a unique holistic educational ecosystem viz., interactive learning, a highly, flexible academic structure, cutting-edge research, strong industry collaboration, and entrepreneurship. The University has a unique combination of various departments such as Department of Climate Change (unique amongst IITs), Material Science, Chemical Engineering and Artificial Intelligence amongst other disciplines of engineering, liberal arts, design, and management which would further give impetus to the envisaged sectors of sustainable energy and industrial transformation.

Greenko Group is a committed and leading renewable energy generation and energy storage player in India with a net 7.5 GWdc installed capacity of RE assets across 15 States in India.

In addition, Greenko Group is a committed and leading renewable energy generation and energy storage player in India with a net 7.5 GWdc installed capacity of RE assets across 15 States in India. Greenko has begun development of storage and green molecule's platform to achieve:

- 100 GWh daily energy storage potential with near-term project pipeline
- 30 TWh under management by 2025
- Electrolyzer installations of ~3.5 GW by 2026-27
- ZeroC business to have 10 GW installations by 2030



and become globally largest storage and green molecules platform. The group aims to transform renewable energy from real-time energy to a dispatchable and controlled medium

through digitalization and storage solutions to support the economy-wide drive for deeper decarbonization across sectors in the country.

Greenko believes that education, research, technology & entrepreneur development is vital for Net Zero & Sustainable transition of the globe. In this direction, it has begun engaging with research and development institutions such C-MET, NEERI, CECRI and BARC and established/establishing partnership in circular economy and net zero technologies. The GSSST would collaborate with global research and educational institutions and contextualise energy transition & industrial transformation technology to India and developing countries.

IITH with its proven track record of excellent academic and research infrastructure built over the last ten years and an active innovation Council, under its mentorship, GSSST would be accessing the infrastructure and faculty of climate change, material science, chemical engineering, and artificial intelligence to conduct education and research programs relevant for energy transition as well as develop entrepreneurship.

GSSST is foreseen to be a center for research academic development and extension in the areas of Climate Change Mitigation, Digitalisation, AI and Space technologies for Energy and Industrial Transition, Circular and Regenerative Economy, Industrial Ecology and Green Chemistry, Hydrogen and Zero Carbon Molecules, etc. and is envisioned to become one amongst the top 10 global education, training, outreach and research organization in Energy and Industrial Sustainability in the coming 10 years.

Greenko believes that education, research, technology and entrepreneur development is vital for Net Zero and Sustainable transition of the globe.

Dr Rambabu Paravastu
(Chief Sustainability Officer,
Sustainability Department)
Greenko Group



A Glimpse of MoU signing

Understanding Urban Heat

KID: 20220304

***Dr Aalok Dinkar Khandekar (R) & **Mr N Sai Venkata Sarath Chandra**



Recent scientific studies project that India will experience seasonal heat waves of increasing frequency and severity in the coming years as a result of anthropogenic climate change. These are likely to present several crucial challenges: from loss of life and property to reduced economic productivity, and from resource (food, water, etc.) pressures to rendering certain places uninhabitable over certain periods of time. The impacts of rising temperatures can be felt even more acutely in urban areas because of the creation of heat islands, owing to the density of buildings, roads, and other material infrastructures and the paucity of natural environments such as green spaces and water bodies.

Given that a large chunk of the urban population in cities of the global South live under conditions of informality—in terms of housing, employment, and transportation arrangements, for example—we are interested in understanding how climate change will impact these population groups and what responses can be developed to minimize potential disruptions. While there is recognition of the challenges that extreme heat events will present for India, and Heat Action Plans at various urban, state, and regional levels have proliferated over the past decade, these remain very programmatic in their orientation, offering little guidance for on-the-ground action. We hope our research can help offset these limitations.

two urban slums in the city and undertaken software-based modeling of the thermal performance of each housing type based on their construction materials. From this work, we know that houses built with asbestos sheets for both their walls and roofs tend to perform far worse than other houses in such contexts (that variously deploy exposed brick, RCC brick, and tarpaulin sheets). Through qualitative interviews, we have then sought to understand various factors that influence the design of housing in such settings. We know, therefore for example, that concerns over safety and security frequently imply that inhabitants forgo windows in their (already cramped) houses altogether, severely restricting ventilation in indoor spaces. Lack of land tenure in such contexts also implies that inhabitants do not want to invest economic and other resources in housing stock that could potentially better shield them from the elements. Some researchers on the team are examining heat as a gendered phenomenon—focusing on how women in low-income communities experience heat differently (on account of being indoors for a greater portion of their time and undertaking a greater share of domestic work, for example), and the practices and knowledge available to them to adapt to and mitigate the impacts of extreme heat. Another research trajectory is to understand how urban lakes, which are aplenty in Hyderabad, can be conceived as ‘cooling infrastructures’. Yet another research theme has been to focus on understanding the emerging health impacts of extreme heat in the region. This research, conducted by N Sai Venkata Sarath Chandra, as part of his MTech research in Climate Change at IIT Hyderabad, makes a case for a dedicated focus on heat health (and climate health more generally) in medical education and practice.

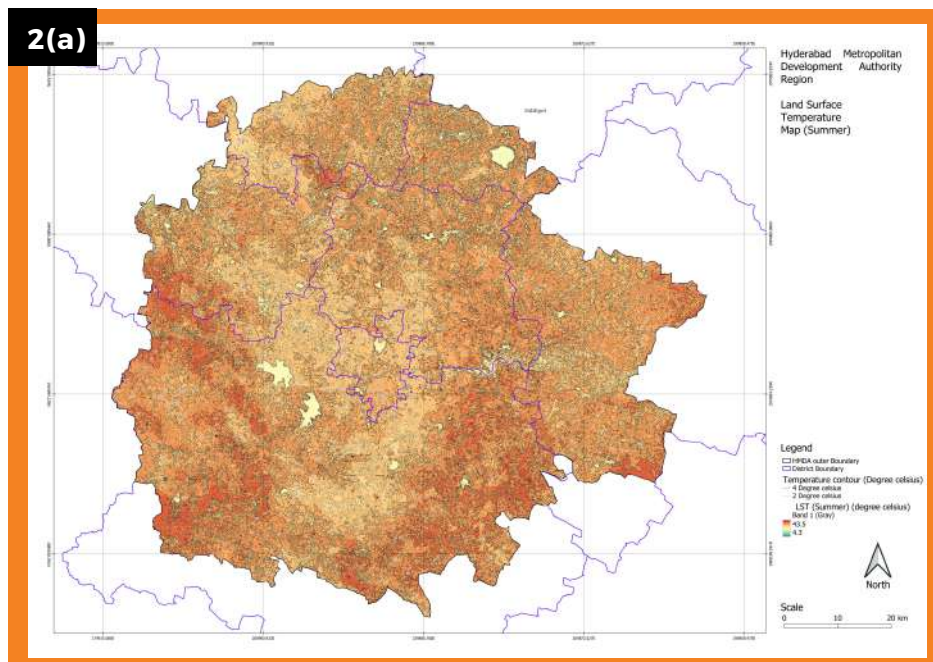


A large portion of the urban population in cities of the global South live under housing conditions that render them additionally vulnerable to the impacts of extreme heat (Image Credit: Goutham Raj Konda).

The effects of adaptive capacities in relation to rising temperatures, however, are unevenly distributed—with some neighborhoods and some residents in better positions than others to shield themselves from harmful thermal exposure.

Our research approach is highly interdisciplinary, combining city-scale spatial and remote sensing techniques with neighborhood-scale survey techniques and other qualitative methodologies. Based on Land Surface Temperature (LST) data, for example, we have identified slum clusters in the city which are hotter than their immediate surroundings. Through survey work and observational analysis, we have further identified different housing typologies in

Our research team explores such issues by focusing on the impacts of and adaptations to rising temperatures among the urban poor in the city of Hyderabad.



Research Diary

Interdisciplinary Climate Change Methodologies:

2(a): Summer Land Surface Temperature (LST) map of the Hyderabad Metropolitan Development Authority (HMDA) territory (Image Credit: Abhijit S. Trimukhe)

2(b): Housing typologies in one informal urban settlement (Image Credit: Abhijit S. Trimukhe)

2(c): Hand-drawn sketch documenting temperatures at one house in an informal settlement ((Image Credit: Sanjana Bandaru)

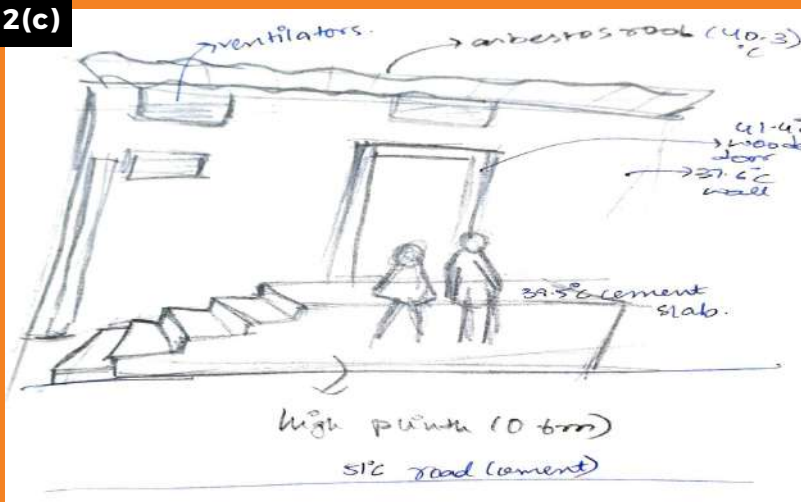
2(d): Factors influencing housing design in an informal settlement (Image Credit: Sakshi Ahuja)

2(b)



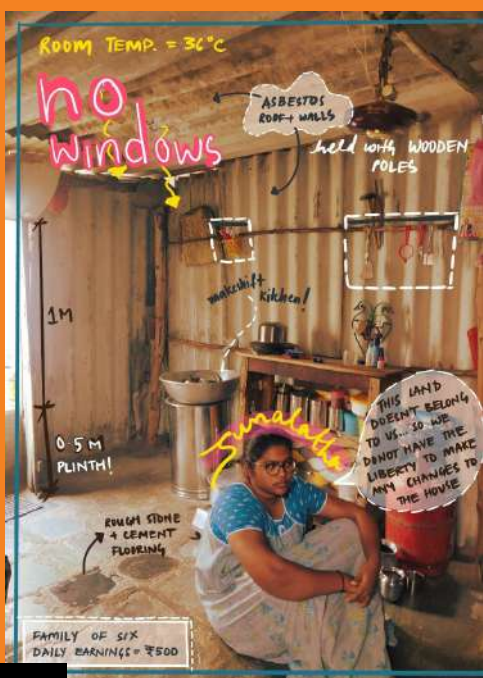
Sr. No.	Roof	Wall
1	Asbestos Sheet	Asbestos Sheet
2	Asbestos Sheet	Brick Wall Cement Plaster
3	Asbestos Sheet	Exposed Cement Brick Block
4	Tarpaulin Sheet	Asbestos Sheet
5	Reinforced cement concrete	Brick Wall Cement Plaster

2(c)



Data collection and analysis for this research are still ongoing, but preliminary results are already promising. For us, they underscore the inextricability of climate concerns from other social, cultural, economic, and other considerations. Climate action, in other words, cannot be disconnected from the everyday contexts in which it seeks to intervene. Our research also highlights the need to develop climate methodologies that can move between a bird's-eye view and a worm's-eye view and everything in the middle in order to apprehend the multidimensional nature of the phenomenon that is climate change.

2(d)



This research, conducted by N Sai Venkata Sarath Chandra, as part of his MTech research in Climate Change at IIT Hyderabad, makes a case for a dedicated focus on heat health (and climate health more generally) in medical education and practice.

*Assistant Professor, Department of Liberal Arts,
**MTech, Climate Change

Climate Change Research @ GOKUL

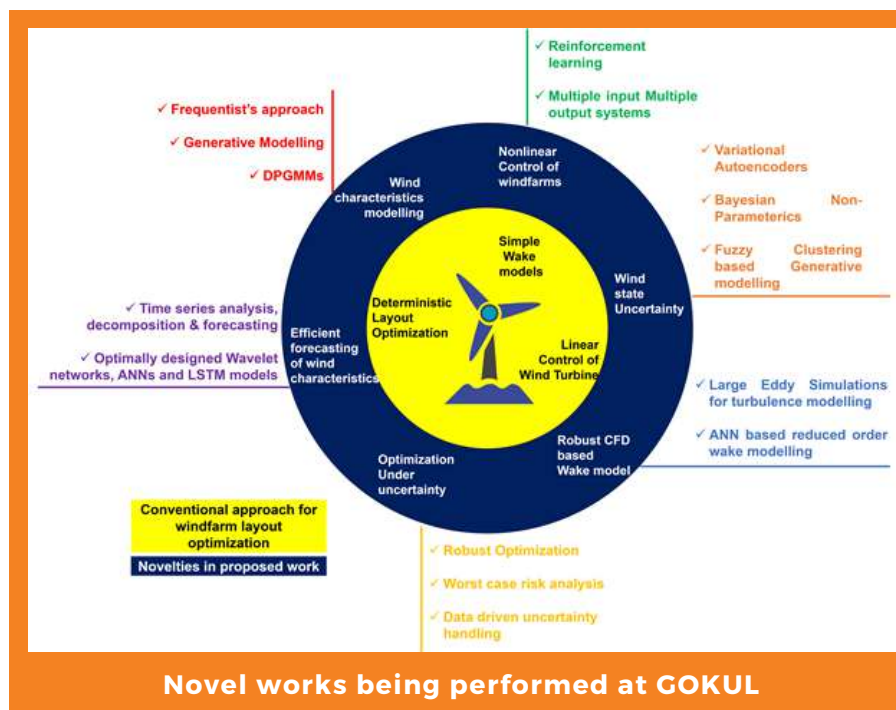
KID: 20220305



Prof Kishalay Mitra

Climate change is increasingly gaining a central stage in the discussions pertaining to public health and national policy-making. To facilitate informed decision-making for the policymakers, it is necessary to provide predictive models which accurately represent the amount of Green House Gases (GHG), and Particulate Matters (PM) like PM10, PM2.5, CO, CO2, SO, SO2, CH4, pH of rainfall etc. in the environment. The availability of vast amounts of data from sensors is driving the use of AI/ML based techniques for understanding climate change phenomenon. Researchers at Global Optimization and Knowledge Unearthing Lab (GOKUL) have designed optimal Recurrent Neural Networks (RNNs) and Long Short-Term Memory (LSTM) networks to capture the dynamic trends of ~15 environmental parameters from the data that cause long-term health hazards. Complicated cross-correlations among various GHGs, PMs and pH of rain were established by performing Global Sensitivity Analysis (GSA), which helped in building the most effective functional mapping among influential features and the output variables through multi-variate modelling (Ravi Kiran, I., Soumitri M. S., Mitra, K., Deep Learning Based Dynamic Behaviour Modelling and Prediction of Particulate Matter in Air, Chemical Engineering Journal, 2021, 426, 131221).

As the fossils fuels account for ~81% of the total energy consumption resulting in a 24% increase in CO2 emissions (Global Energy Yearbook 2021), climate change, on the other hand, heavily impacts global cities, the downsides of which can be minimized by adopting renewables like wind energy as alternative energy sources. Despite its green advantages, the uncertain and nonlinear nature of wind pose challenges for the wind farm owners to design and control wind farms effectively. Conventionally, the wind is modeled by constructing a Probability Mass Function (PMF) using time-series data of wind speed and direction, which in turn is used in applications such as wind-farm layout optimization (or micro-siting) and control. Though this method is adopted by the industry, the ability to capture long-term variability in wind is sacrificed, making the results unrealistic.



Further, lack of consideration of uncertain nature of wind during the design stage results in farms reporting non-operational during a large part of their life time. This necessitates the requirement of novel methods capable of forecasting uncertain wind nature accurately by considering the long-term variability in the data and LSTMs are proposed to handle such variations in wind data. The heuristics involved in setting the hyper-parameters in LSTMs, however, are extremely tedious and generally set by trial and error. An evolutionary optimization (e.g., genetic algorithms) based holistic methodology is, therefore, developed which can forecast the nonlinear nature of wind accurately and automatically set such hyper-parameters while performing a trade-off optimization between objectives like minimization of error and overfitting. With such an accurate forecasting tool in place, a designer can consider several wind scenarios while designing a wind farm making the design robust to wind state variations (Mittal, P., Mitra, K., In Search of Flexible and Robust Wind Farm Layouts Considering Wind State Uncertainty, Journal of Cleaner Production, 2020, 119195).

Loss of Crop, unless predicted and corrected ahead in time, can create a havoc in society's exchequer every year. To address this issue, models which can identify the irregular or abnormal growth of the crop would be of great help. The satellite imagery data of the crops throughout the entire year can be used to build such models. GOKUL's research is currently focusing on designing a predictive framework, which can capture the growth pattern of different crops from these satellite images. The model includes a combination of supervised and unsupervised learning methods to extract the spatial and temporal dynamics from the images. This model thus learns the growth pattern of the crops at every time step and identifies any abnormal growth indication at any time throughout their growth period. The causes of these abnormalities (such as drought conditions, weather changes, soil contamination etc.) can be found out and necessary measures to address these causes can be taken at early stages leading to prevention of crop loss and enhancement of yield.

Prof Kishalay Mitra
(Head of the Department)
Department of Chemical Engg

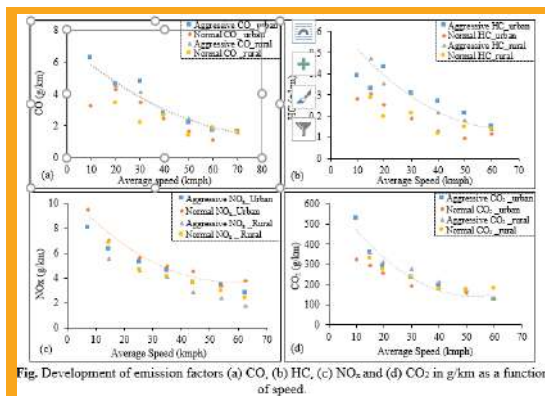
Evaluating the Impact of Driving Style on Tailpipe Emissions in Heterogeneous Traffic

KID: 20220306

***Prof Chandrashekar C, **Dr Pritha Chatterjee, ***Dr Digvijay S Pawar (L-R)**



This study employed a portable emission measurement system (PEMS) to examine the effect of driving style (aggressive and normal) on tailpipe emissions for diesel passenger cars in Sangareddy town, Telangana, India. The study showed that driving style, speed, acceleration/ deceleration, and road type significantly influence tailpipe emissions. Aggressive and normal driving styles on urban and rural roads significantly differed in average CO₂, CO, and HC emission rates. Driving aggressively increased CO₂, CO, and HC emission rates for the operating modes (acceleration, deceleration, and cruise) by 18 to 40% over normal driving. The CO, HC, and CO₂ emission factors were minimal at 40-60 kmph during normal driving styles on both urban and rural roads.



Development of emission factors (a) CO, (b) HC, (c) NO_x and (d) CO₂ in g/km as a function of speed.

The insights from this study could be used to understand the influence of driving style on emissions & for developing effective eco-driving strategies & training programs to improve air quality.

***Professor,**
Department of Chemical Engg
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Department of Civil Engg
*****Associate Professor,**
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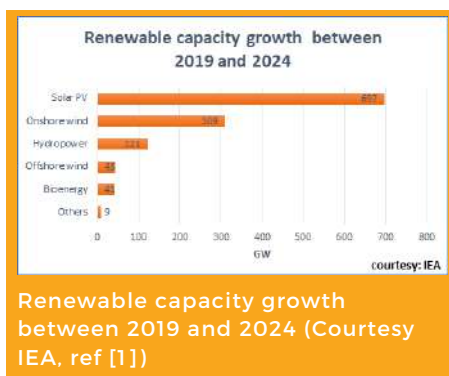
Development of eco-friendly and low-cost organic solar cells

KID: 20220307

Dr Sai Santosh Kumar Raavi

The snowballing issue of global warming and its adverse effects, means the impact of any new technology on the environment and carbon footprint can no longer be ignored. Any context, the field of renewable energy sources such as solar, wind, hydro, bioenergy, geothermal, and hydrogen have received unprecedented impetus-globally owing to the growing trends of energy requirements as well as to augment the reliance on the depleting fossil fuel reserves. As per the latest trends published by International Energy Agency (IEA), renewable power capacity is set to expand by 50% between 2019 and 2024, led by solar photovoltaics (PV). The installation of solar PV systems on homes, commercial buildings and industrial facilities is set to take off over the next five years (figure 1), transforming the way electricity is generated and consumed. [1] Solar power in India is a fast-developing industry. The International Solar Alliance (ISA), proposed by India as a founder member, is headquartered in India. The country's solar installed capacity reached 59.302 GWAC as of 31 August 2022 as per the report from Ministry of New & Renewable Energy (MNRE), India. Under

the ages of MNRE, innovative initiatives like "One Sun One World One Grid" and "World Solar Bank" to harness abundant solar power on global scale is now gaining momentum.



Among the key challenges faced by the Solar PV community is find a balance between manufacturing commercially viable solar panels to meet with growing consumer requirements and optimise the manufacturing technology follow an environmentally sustainable design. Despite the tremendous success and maturity of Si-solar cell technology, it is limited by the huge fabrication costs as

the silicon processing is very expensive involving very high temperature methods that leaves a large carbon footprint. Nonetheless, considering the long-term durability and stability exhibited by Si-solar cell panels, they are continued to be deployed for installations, while there is pronounced thrust towards development of alternative energy conversion technologies that are eco-friendly and cheaper. For a PV technology to satisfy the sustainable criteria, it should be economical, should have abundance of resource availability with lowest environmental impact. Organic molecule solar based energy conversion devices [4] have gained lot of interest as an attractive alternative owing to possibility of low-cost fabrication procedures, ability to print them on flexible substrates, engineering at molecular level to tune their bandgap and charge transport characteristics and a potentially less hostile environmental bearing. These devices include technologies like organic (polymer) solar cells (OSC), dye-sensitized solar cells (DSSC),



quantum dots solar cells (QDSC) and the latest technology that boasts of efficiency close to single junction silicon solar cells, perovskite solar cell (PSC) and rapidly approaching commercialization stage.

At IIT Hyderabad our research group is strongly motivated to contribute towards the development of various organic material based solar energy conversion devices mentioned above.

This area of research is highly interdisciplinary and our group collaborates with various other groups that's includes researchers from Chemistry, Chemical Engineering and

Electrical engineering departments of IIT Hyderabad. Key focus area of our group is towards the development of charge transport interlayers for efficient interfaces to be used in the above organic material based solar energy conversion devices. Recently our group demonstrated a 'green' DSSC making use of an inexpensive magenta dye, New Fuchsin, for the first time, as a photo-sensitizer, and a water based liquid electrolyte based on Na₂S and aqueous Fe³⁺/Fe²⁺ and CoS deposited on C-fabric as the counter electrode. The best device showed power conversion efficiency which is among the best obtained with DSSC with photosensitizers with a simple molecular structure. The published work established a methodology towards eco-friendly DSSC employing natural dyes and pigments. The advent of smart IoT devices in daily lives has created a tremendous requirement to find alternative sustainable solutions to power these devices. There is a great thrust to develop photovoltaic devices that work well in diffused light conditions, and the research area of indoor photovoltaics has received

lot of thrust recently. In this direction along with Prof Shiv Govind Singh's group from Electrical engineering department we have developed integrated thermally evaporated OSC module with more than 50 cells integrated into 5 cm x 2 cm ITO substrate. The thermally evaporated integrated OPV devices is expected to pave way of powering numerous low power IoT devices. Additionally, we have fabricated photoanodes plasmonic gold

(Au) nano particles embedded Ytterbium-doped titania (TiO₂) nanowire for efficient indoor DSSC devices with efficiency close to 14% under white light

Demonstration of solar cell fabrication to class IX & X students



emitting diode (LED) illumination. It is expected to have excellent potential when utilised as photoanodes for PSC devices as well. Complimenting the research on the energy conversion devices our group also presents strong expertise in the area of advanced transient optical spectroscopy for various functional materials characterisation and providing the critical inputs to aid in the fabrication and optimisation of devices using these materials. To this end, we employ a plethora of techniques encompassing femtosecond transient absorption spectroscopy, steady-state and time-resolved photoluminescence spectroscopy with TCSPC, cw-Photoinduced absorption Spectroscopy, Transient Photocurrent spectroscopy, etc. Our group also engages in various outreach activities like organization of ATAL Faculty development program on Energy conversion and storage devices, demonstration of fabrication and characterization of solar cells to school children etc.

“ There is a great thrust to develop photovoltaic devices that work well in diffused light conditions



Home-built EQE set-up

“ The thermally evaporated integrated OPV devices is expected to pave way of powering numerous low power IoT devices.



Indoor solar cell (J-V) characterization

Dr Sai Santosh Kumar Raavi
Associate Professor
Department of Physics

Development of a flood forecasting system integrating climate information

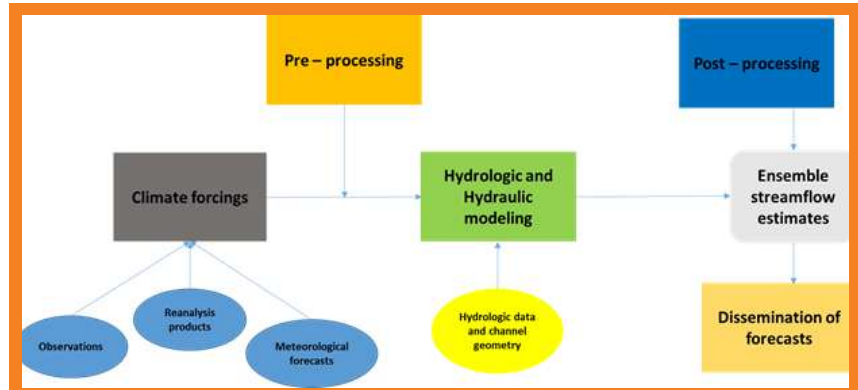
KID: 20220308

*Dr Satish Kumar Regonda, **Mr Surya Kiran Guniganti (L-R)



Climate change is easily perceived in rising temperatures at global scale, and it has the capability to alter the hydrological cycle at regional scale. Many studies across the globe have shown the effects of climate change in terms of increased frequency and intensity of extreme precipitation, changes in seasonal precipitation patterns and different aspects of floods. In India, low pressure systems that typically occur during the monsoon cause floods and are influenced by the climate drivers whose association with hydrology may vary because of the climate change. Therefore, it is important to integrate climate information on both short- and long-term scales in flood modeling and management.

Flood modeling including flood forecasting seen as non-structural measure to mitigate flood effects, and having reliable information at advance lead times greatly benefits. In this regard, climate at both short- and long-term scales on a river basin scale must be incorporated into the flood forecasting systems. Streamflow modeling has witnessed great advances but are in the research settings, and the operational mode of streamflow modeling is in its early stages. The current operational flood forecasting system in India is mainly driven by statistical- and empirical-methods and does streamflow estimation including flood forecasts at specific locations. Importantly, it does not provide uncertainty that is associated with forecasts which result from multiple sources including climate.



The efforts addressing the issues have been put together by relevant agencies using models of both open source and commercial, e.g., such as Hydrologic Engineering Center - Hydrologic Modeling System (HEC - HMS) and MIKE.

One important requirement for all these models is availability of significant amounts of data, which has been on the rise in recent years. The other aspect is to modify the model or model elements to reflect the regional processes including changes in land use and land cover - highlights the need to develop indigenous models that are capable of providing ensemble information at desired locations incorporating the climate information.

In this regard, a widely used conceptual model, i.e., Sacramento Soil moisture accounting (SAC-SMA) is employed over the Narmada river basin, India. While the proposed framework is similar to the ensemble streamflow modeling framework that is used elsewhere,

we like to explore the physics of processes with model parameters so that models can represent indigenous models with less effort with a goal to bring the methodology on other river basins. We plan to explore methods that integrate climate information, multiple hydrologic and hydraulic models and statistical models so that probabilistic streamflow is estimated - it assists in efficient mitigation measures.

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** Research Scholar, Department of Civil Engg

Climate change, extreme rains and floods - challenges and opportunities

KID: 20220309

Dr Satish Kumar Regonda

As a child, I was curious to find a place where rain appears magically. However, this is no longer an intriguing proposition. In the city of Hyderabad, I see rain, heavy in some parts while merely drizzling in others, and no rain at all in other parts still.

This aspect i.e., spatial variability of rainfall has always existed, but having it within a small geographical area, such as within Hyderabad city, is relatively new and has been associated as one important effect of anthropogenic climate change. This

presents new challenges such as frequent flooding that we have witnessed in major cities and river basins across India and its neighboring countries. This also highlights the need for new various capabilities in the context of rainfall and runoff estimation.



Variability in rainfall manifests in different ways e.g., more rainy days/spells, increased rainfall intensity, shorter rainfall spells, changes in rainfall locations, etc. Therefore, changes are expected in flood aspects as well. These already disrupt conventional engineering approaches to flood planning and are further exacerbated due to changes in land use and land cover (LULC) and urbanization. Extreme rains and floods impact a diverse range of stakeholders, including e.g., street vendors, industries of both small and large scale, and policy makers, necessitating the development of customized information and products that can cater to their needs. This warrants (a) new sets of data of multiple spatial and temporal scales, and (b) new methods that read information, model mechanisms and provide tailored products.

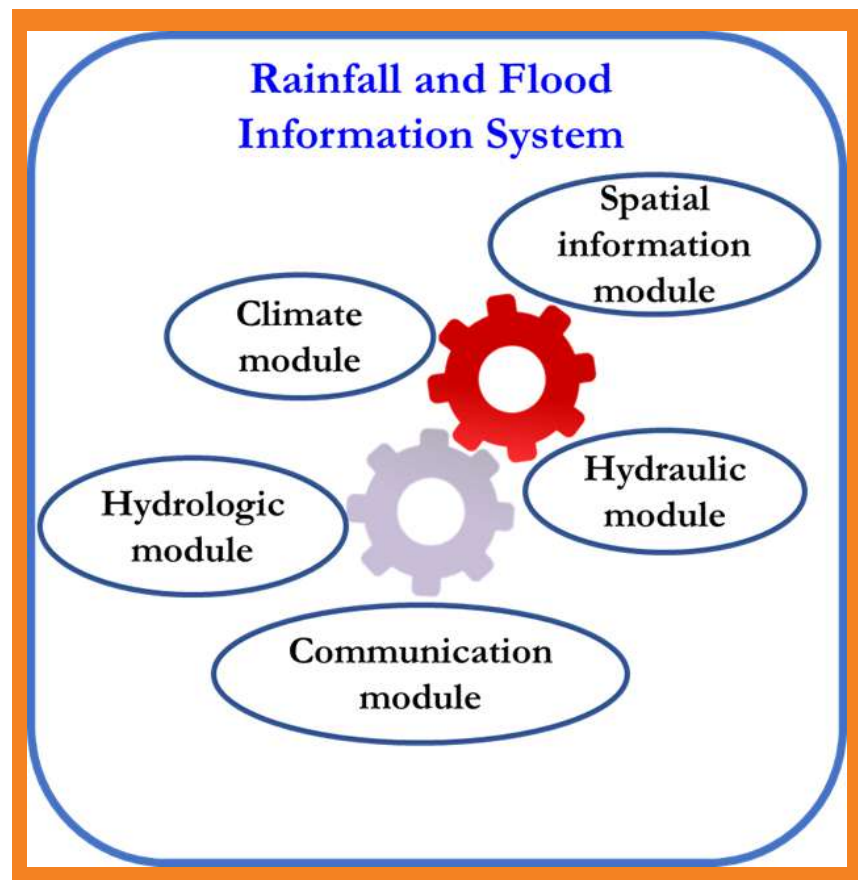
Conventional data sets of basic hydrometeorological variables allowed for quite a few interesting findings, however, as the scale of challenges has increased, monitoring of (new) variables in new ways has become imperative. For example, heat generating sources in cities are of a wide variety, i.e., the city's dominating urban cover (asphalt and cement roads), vehicular traffic and air conditioning. We therefore now require monitoring of temperatures at finer spatial and temporal resolutions. Additionally, concentrated skyscrapers in patches of areas not only contribute to the city's heat islands but modify wind patterns, which need to be monitored as well. Further, monitoring of clouds as well as rainfall and runoff measurements at finer spatial and temporal resolution is also needed as cities start exhibiting significant spatial variability in rainfall. To effectively route the rainfall that contributes to runoff, it is important to understand the drainage patterns. While these patterns do not change frequently in river basins which predominantly comprise rural areas, cityscapes are far more dynamic and require frequent monitoring and updating in this regard. Periodic surveys undertaken with drones and LiDAR systems can be of great use here.

The gauge network to measure various hydrometeorological variables including rain, streamflow and stage has been greatly densified over the last several years. Data from multiple sources, weather radars, satellites and high dense rain gauge networks is also becoming available more readily. Information on many weather variables from high density automatic weather station (AWS) networks assists in improving climate model's reliability and accuracy and allows for the development of regional- and local- as small as city-level climate models.

While issues of data quality, storage, and resolution persist, there is nonetheless a clear opportunity for developing new methods that improve understanding of regional hydroclimatology and allow development of new products such as high resolution rainfall information and flood maps.

Against this background, we are currently working to address rainfall and runoff estimation aspects comprehensively for the city of Hyderabad and a few river basins in India. We analyzed high density hourly rain-gauge data for the city of Hyderabad and understood the climatological aspects of the rainfall at

We have initiated collaborations with multiple institutes, and started steps from data collection (weather and rain gauge stations and drone) data archiving and database development to modeling including prediction. We believe that these types of information systems need to be city- as well as river basin-specific for a prosperous society.



different space- and time- scales (Mohammed et al., 2022). Further, we explored the usability of information content in weather radar- and satellite-based rainfall estimates. Additionally, development of hybrid methods i.e., combination of physically based and statistical methods is underway. Similarly, flood modeling efforts on river basin scale addressing uncertainty information are pursued (Sharma and Regonda, 2021a, 2021b), and methods capable of integrating climate information and multiple models are underway. Thus, we envision a system with following key components, i.e., climate-, spatial information-, hydrologic, hydraulic- and communication- modules (Figure).

Associate Professor, Department of Civil Engg

Climatological aspects of rainfall and urban flood modeling for the City of Hyderabad

KID: 20220310

Dr Satish Kumar Regonda, Mr Azharuddin Mohammed, Mr Padmini Ponukumati (L-R)

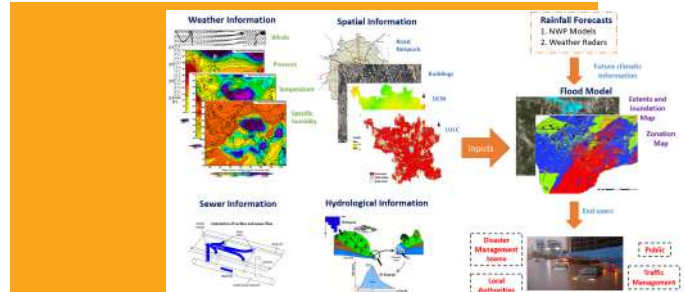


Every year in the recent past we observed severe flooding in Hyderabad city which witnessed human fatalities along with monetary loss and in the least it caused hindrances in daily life activities. In fact the floods that happened during October 13 - 18th, 2020 were unprecedented which caused loss of life and property. The rising trend of urban floods does raise certain questions - are these floods resulting from anthropogenic climate change ? or are these floods a result of unplanned urbanization ? It can be said unequivocally that both the aspects i.e., changing climate and urbanization are responsible for floods in cities. In this context as well as for the effective flood mitigation measures, understanding of the region's climate and effects of urbanization is necessary.

Rainfall analysis for the city of Hyderabad (figure given below) suggested that the spatial patterns of climatological rainfall attributes have a relatively large amount of rainfall depth and intensity for the central region of Hyderabad. In regards to rainfall intensities an increased spatial extent was observed over the time and increasing year wise mean rainfall depth and intensity over the study area implied non-stationarity of rainfall. Comparison of rainfall amounts between the study area and its suburban region suggest likelihood of larger rainfall amounts for the urban region hinting influence of urbanization and its effects.

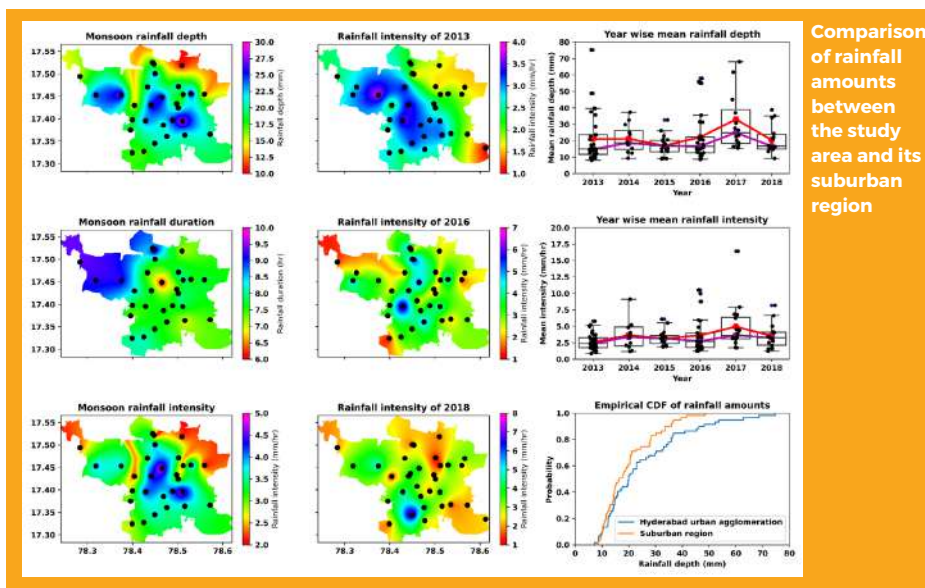
Non-stationarity in rainfall of Hyderabad, i.e., rising trends in the intensity of rainfall (Mohammed et al., 2022), can be attributable to climate change and urbanization effects, including the urban heat island phenomenon. Changing trends in rainfall intensities make it imperative to verify whether

the stormwater management systems (SWMS) have enough potential to house the resultant runoff. The rise in flooding events in Hyderabad city in recent decades implies that the existing SWMS is insufficient and requires redesigning. While redesigning has its challenges (e.g., the high cost of redesign), the forecasting techniques appear to be a good solution for lessening the impact of floods. Noting that rainfall is a key variable and as data is available at different spatial and temporal resolution is available from multiple sources, i.e., weather radar rainfall estimates, satellite rainfall estimates and Automatic Weather Station (AWS) data, the techniques that integrate rainfall estimates from all the sources are explored. In this regard, rainfall estimates from the weather radars and Integrated Multi-satellite Retrievals for GPM (IMERG) algorithm were analyzed for the city of Hyderabad.



Proposed flood information system for the city Hyderabad; a few visual images are taken from different

Realizing the data relevant issues including quality and unavailability for a longer period of the record, exploration of new methodologies explored for the city of Hyderabad are underway (Figure 1). This consists of integration of climate understanding, data of different variables and combination of physically based and statistical methods so that difficulties such as limited data resources are overcome and information/products of different levels of accuracy is provided. In addition to developing technologies, it is important to have a platform that connects stakeholders, decision-makers, engineers and scientists so that the gaps will be addressed. Given the future's unpredictable weather patterns and continuing urbanization, it is crucial that all of the aforementioned segments of society share responsibility and work together to build a city that is climate and flood resistant and can proudly claim that "Hyderabad - a flood resilient city".



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 ** & *** Research Scholar, Department of Civil Engg

Green Buildings towards achieving UN SDGs

KID: 20220311

*Dr Shiva Ji, **Mr Abhishek Tiwari (L-R)



Everyone on the globe is facing challenges as natural resources are depleting fast. There may be direct or indirect causes that will make survival difficult for every living species. All these issues come under Climate Change; it is real-time to react to it to reduce the negative impact of climate change. Now, everywhere urbanization has begun, and the major challenges (environment-related) come during the construction. To avoid all these, Sustainable Development comes into the picture. We cannot stop development, but we can adopt something which reduces the impact of climate change impact. In this context, there are two Sustainable Development Goals as described by the United Nation (UN SDGs), which is directly connected to this.

SDG 9: Industry, Innovation, and Infrastructure
SDG11: Sustainable Cities and Communities

These goals are to promote sustainable development, which leads to reducing the negative impact of climate change. Now the question arises, "what is sustainable development"? According to the Brundtland Report (the UN commission's 1987 report Our Common Future), Sustainable development is described as development that "meets the requirements of the present without compromising the ability of future generations to fulfill their own needs." We humans, to make our buildings aesthetically pleasing, are paying less attention to the building's surroundings and destroying native vegetation to construct which is resulting in environmental degradation.

Would you believe that it's as much as 80% of the total floor heat loss? That's right. It's the old Pareto, 80-20 rule with concrete floors. 80% of the heat is lost through 20% of the total surface, which leads to an increased global mean temperature. So, what is the solution?

The solution is "Green building", also known as "Environment-friendly buildings". Green building refers to both the structure and the processes responsible for constructing that structure, to be environmentally accountable and resource-efficient, throughout a building's life cycle.

There are several features that can make a building 'green' and have the solutions (listed below) corresponding to all three traditional pillars of sustainability.

GRIHA - The National Green Building Rating System:

To describe and categorize sustainable characteristics of buildings of various types and scales, we currently have several standards and rating systems in various regions of the world. Green Rating for Integrated Habitat Assessment (GRIHA) is one of them and is mostly used in India.

GRIHA (version 2019) rating system is divided into ten categories (as shown in the figure). It has a total of 30 criteria points associated with a scale of 100 (+5 innovation). And gives ratings one-star, two-star, three-star, four-star, and five-star based on buildings obtaining mark (out of 100+5).

Pictures of Green Buildings:



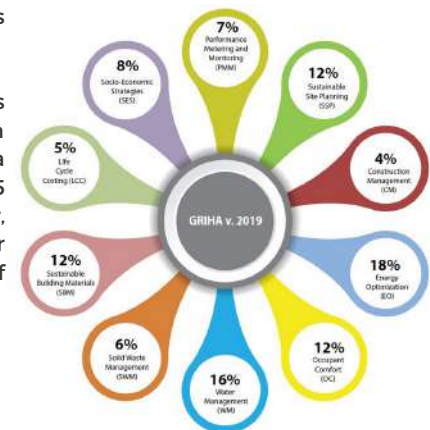
Source: Titan Integrity Campus, Bangalore (Ref: archdaily);



Source: Innovation Park of IITH,



Academic blocks (A, B, and C) of IITH



Environmental solution	Economic Solution	Social solution
Emissions reduction	Energy and water savings	Improved Health
Water conservation	Increased property values and profits	Improved schools
Waste reduction	Increased employee productivity	Improved employee satisfaction
Improved air and water quality	Reduced operating costs	Improve air, thermal, and acoustic environments
Conserve natural resources	Decreased infrastructure strain	Healthier lifestyles and recreation

The IIT Hyderabad campus is in its 1st phase of construction. Academic buildings (A, B, and C), boys' and girls' hostels (A to J), and other structures are built as GRIHA-rated buildings. The GRIHA certified buildings of IITH are in the 2nd phase of construction. Innovation Park, new hostels, MSME, CHY, BTBM Buildings, etc ongoing GRIHA project to construct green buildings. The structure and Maintenance Department (CMD) of IIT Hyderabad is trying to construct Green Campus, which is associated with GRIHA project.

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** MTech, Department of Climate Change

Going Green is the New Red. Period!

KID: 20220312

*Dr Shiva Ji, **Ms Sree Anusha G (L-R)



Did you know that around 200,000 tonnes of sanitary waste are generated annually, and they all contain plastic - in fact, 90% constitute plastic material, which is equivalent to use four plastic bags per sanitary pad!

You don't believe it! Now, check this out! About 24.6% of the population were 'women of reproductive age globally in 2021 [1], and the average user throws away an astonishing 125 to 150kg of tampons, pads, and applicators in their lifetime, which end up in landfills or, even worse, in the oceans, rivers, and beaches and contaminate the entire ecosystem [2].

In a society where menstruation and menstrual cycles are still considered taboo topics to discuss, let's focus on it as a reality rather than a curse, as when it comes to environmental impact, not all period products are created equal.

These single-use disposable menstrual applicators appear to cause the highest environmental impact because of the amount of mineral/fossil fuel depletion caused by their production, their estimated carbon footprint, and the amount of wet and dry waste it produces. So, this article is dedicated to all women of reproductive age (15-49 years) who now think it's hypocritical to complain about the state of affairs without doing what's within our power.

Removing disposable sanitary products is the least we can do, and switch to more eco-friendly products. Several environmentally friendly, brilliant innovations with safe health benefits have been available lately, such as reusable pads, tampon applicators, and menstrual cups. And perhaps it is more relevant today to think about the impact our periods have on the environment than ever before and not wait for Akshay Kumar to address it in another Bollywood movie.

These eco-friendly products are economical, pocket-friendly, last for years, reduce plastic use and thus lessen our impact on the environment; therefore, every woman deserves access to a range of suitable, safe, and affordable products.



So, ladies! Please don't be ashamed of that time of the month. Let's take a big step forward in the fight for menstrual equity and save our planet by generating fewer waste profiles and carbon footprints

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** Research Scholar, Department of Climate Change

The deteriorating conditions of global hunger and poverty may lead to the next world war?!



KID: 20220313

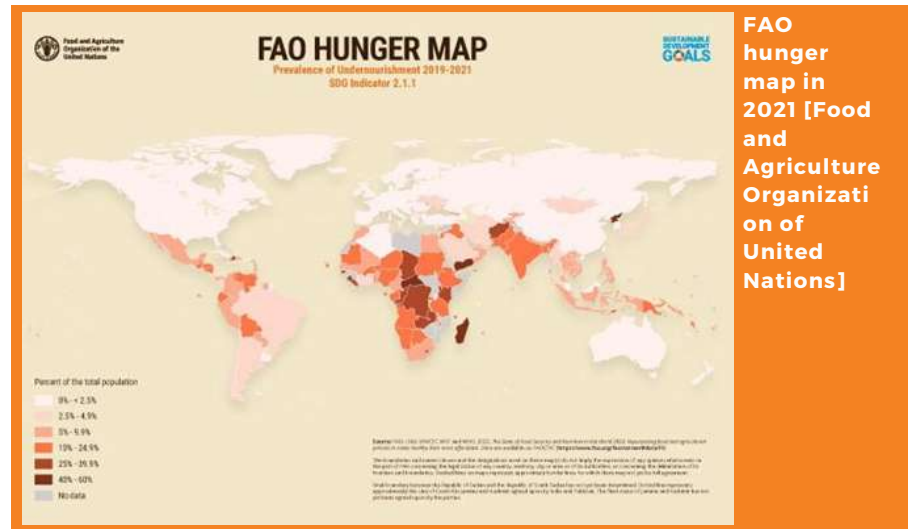
***Dr Shiva Ji, **Mr Lagnajeet Roy (L-R)**

Poverty and hunger go simultaneously in the daily aspect of human life. Though the statistics are improving slowly, some conditions can still be seen a cross several pockets in Asia, Africa, the Middle East, and many other places worldwide. As India is a third-world country, similar scenarios can be seen on daily. In the history of world wars, we can see a conflict for the territory or show the world which country is more robust. In the upcoming situation, we know that so many things will change as we can face the water crisis, less food production, less per capita income, inflation, and so on. In the scenario of world about 9.2% of the world, or 689 million people, live in extreme poverty on less than \$1.90 a day, according to the World Bank. About 193 million people in 53 countries/territories experienced acute food insecurity at crisis levels or worse in 2021. Over 45 million children are affected by wasting, the most visible, severe, and potentially life-threatening form of malnutrition. In 1966 the green revolution in India showed the pathway to lead the hunger solution. Still, as we know, the population is increasing, so we have to understand how to cope with the upcoming situation. Global climate change is the reason for the scarcity of fresh water and decrement in yield. Scientists are trying to rely on climate-resilient and sustainable farming in this situation. Most people in many Asian, African, and South American countries are below the poverty line.

Poverty is when people can't fulfill basic needs like food, a home, clothes, and drinking water. According to Niti Aayog, 25% of the Population in India is Poor. In this poverty and the hunger-stricken situation in the upcoming generation, there is a question: what will happen if the poverty and hunger conditions worsen? It may lead to civil unrest, heavy exploitation of resources, fast extinctions, famines, wars, and other catastrophes. Every person wants to survive by any means; there will be a specific situation where a fight will arise to get good drinking water, food, and money to stay the fittest. We can't sit idle and wait for it to unfold but must strive to save the planet as there is no planet B!



World poverty map by World data lab
[<https://worldpoverty.io/map>]



FAO hunger map in 2021 [Food and Agriculture Organization of United Nations]



Rural living in Chhatna (a village in west Bengal) (Source: Author)

Conclusion: As there are many issues rising, the whole world is trying to capitalize over this problem and to make this world a better place for the upcoming generation so that no people have to sleep in hunger and no people have to be homeless

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** Research Scholar, Department of Climate Change

Education-First step towards Sustainability

KID: 20220314



***Dr Shiva Ji, **Ms Ravisha Jain (L-R)**

"Education is the passport to the future, for tomorrow belongs to those who prepare for it today." –Malcolm X.

Education is the basic need of a human being.

It is a human right to get at least a quality primary and secondary education through which they can further choose their life path. Yet, for too many humans across the globe, schooling does not lead to learning, and this brings light to our 4 sustainable development goals.

QUALITY EDUCATION.

As we can see, the government of many countries has many policies which make primary education mandatory. But then the question arises whether the children of backward or underdeveloped countries and areas are getting the education with the fundamental skills as according to UNICEF 600 million children and adolescents worldwide are unable to attain minimum proficiency levels in reading and mathematics, even though two-thirds of them are in school[1].

Several reasons exist for why children around the world are deprived of education and learning. Poverty remains one of the most obstinate barriers. Furthermore, even in schools, insufficient teacher training, inadequate education materials, and insufficient infrastructure prevent many children from learning.

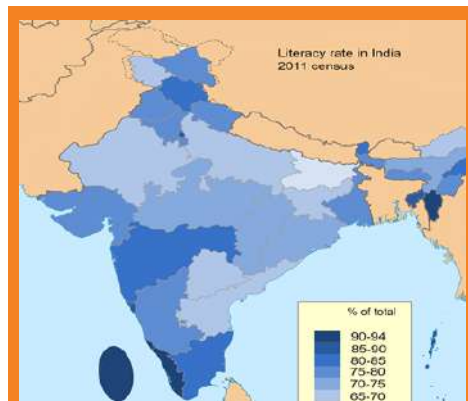
If we talk about our country India, then data shows that the average literacy rate in India is 77.70% in 2021.



Source:Author

As approximately 14% of Indians are illiterate and lack basic education. The National Family Health Survey 2019-21 (NFHS-5), points to a literacy rate amongst adult women (15-49 years) at 71.5%, & adult men (15-49 years) at 87.4% [2]. And among 77.4% only 50% of the people have proper education with good fundamentals. The participation rate in pre-primary organized learning (% of children aged 4 to 6) 85.2 was in 2020 whereas the Net primary enrollment rate (%) is 94.6 in 2020.[3].

Consequently, without proper education, a person cannot have proper employment and earning potential in life for their requirements and hence increasing the risk of adverse health and poverty.



Source:Ranking of states and union territories by literacy rate: 2011 Census of India Report (2013)

Therefore, every person should have access to quality education regardless of their socioeconomic status as education is the first step towards empowerment. Education has the true power of turning society in a positive way. We are also responsible for improving society by imparting our knowledge to unprivileged students and teaching them new skills which will help them in the future. A country's economy becomes more productive as the proportion of educated workers increases since educated workers can more efficiently carry out tasks that require literacy and critical thinking.

However, obtaining a higher level of education also carries a cost. Education does not have to be extensive to be beneficial to a country; basic literacy programs can still have a positive impact on the country's economy. In countries with more educated workers, economic growth is faster than in countries with less educated workers. Due to this, many countries finance primary and secondary education in order to boost economic growth. Education can be seen as an investment in human capital, the same way that better equipment can be seen as an investment. Thus, education plays an important role in bringing prosperity to a country and, thus, to the entire planet.

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Inequality in India and its Effects on Society

KID: 20220315

*Dr Shiva Ji, **Mr Utkarsh (L-R)

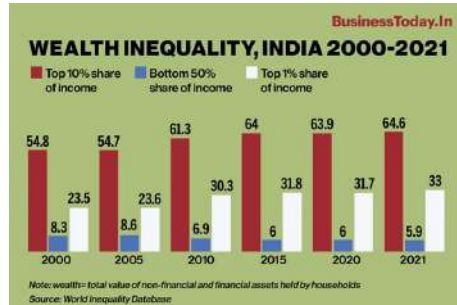


We are a country of approx 1.4 billion, and quite diversified. Having a few people who own a whole skyscraper in which they even don't live for various reasons to the last person in line who doesn't get to choose on which side of the footpath they have to sleep. Yes, we take pride in our diversity but diversity in this form is a bane to our country, and surely diversity in the economy is something that should be avoided.

While we were celebrating Azadi ka Amrit Mohotsav there were around 10.2% of India which was in extreme poverty according to the world bank, more than half of children under the age of 4 are stunted and malnourished, and we still rank 47 highest in Child Mortality in the world. Even after 75 years of independence we still rank 147 in the Commitment to Reducing Inequality Index which is published by Oxfam International.

Economic inequality is the unequal distribution of income and opportunity between different groups in society. There is inequality in our society and during the pandemic, the inequality has increased, and the marginalized sections of society were hit harder than the rest of us. In our country inequality is not just decided by the skills one has, it also has a lot to do with caste, gender, and even the location in which one is born into. On average SC ST communities are the most marginalized sections of our society and women are even more marginalized in them. Periodic Labour Force Survey for the years 2017-18, 2018-19, and 2019-20 shows that the top 10% earn approximately equal to the bottom 64%. The top 10 account for one-third of the incomes earned. This essentially means that the Rich of India controls more wealth and wealth is highly asymmetrically distributed. Urban areas have a 44.4% wealth concentration in the highest quintile (20%) compared to a meager 7.1% concentration in rural areas this shows that there is a higher level of inequality in the urban population than in rural. (source: the State of Inequality in India Report was released by the Economic Advisory Council to the Prime Minister).

The Inequality in India despite the growth in the last two decades has significantly increased, the share of the bottom 50%

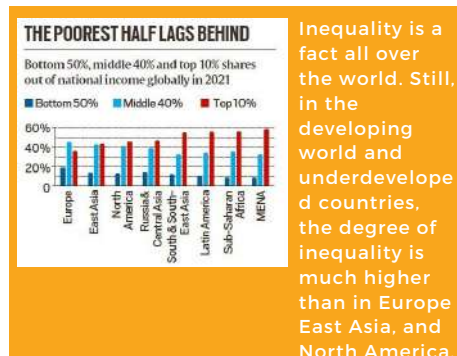


has gone down from 8.3% to 5.9% while the share of the top 1% has risen up from 23.5% to 33%. This has led to resources, facilities and services being provided to a few while the rest of the population is deprived of that.

Owing to the low levels of income in some sections of society and the higher cost of living in urban India, and the higher level of inequality lead to the development of slums. Around 6.55 crore of the Indian



population lives in slums. (source: Government answer in Rajya Sabha, 9 Oct 2022). At the end of 2020, the wealth Gini coefficient of India stood at 82.3. This was a significant increase compared to 74.7 in 2000. The biggest increase was recorded from 2000 to 2005, indicating a strong trend in inequality (source: World Bank). The Palma ratio is the share of all income received by the 10% of people with the



highest disposable income divided by the share of all income received by the 40% of people with the lowest disposable income. Countries should aim at a Palma ratio of no more than 1 India's is at 1.5, indicating a much higher level of economic inequality. (source: orfonline.org).

Effects of inequality on society

The link between poverty and crime traces its existence way back to the times of Aristotle when he stated that Poverty is the parent of crime. This statement aptly summarizes how the two concepts are intrinsically linked. The link can be studied in two ways:

The poor are likely to be criminals
The poor are the victim of crimes
There is a vicious cycle between poverty, unemployment, and crime. Due to poverty, a person is mostly deprived of good education, which

leads someone to unemployment and further, the individual enters into crime. The inverse can also be true such as a person with a criminal record may not get a job which would lead him to remain poor. Hence this cycle does not

allow the poor to get out of this chain, and their whole life is doomed. Is poverty a risk factor for domestic violence?

Women in households with low incomes are 3.5 times more likely to experience domestic violence than women in slightly better-off households. The links are complex, but one thing is sure: poverty exacerbates the abuse because it increases or prolongs women's exposure to it as it reduces their capacity to leave (source: cpag.org.uk)

Work by Belton M. Fleisher leads the way in the 1960s by analyzing the effects of income and unemployment on juvenile delinquency (Fleisher, 1963, 1966). According to him, crime rates are positively associated with

unemployment and low-income levels. The argument that lower income levels lead to higher crime rates was confirmed by a study conducted in 1973 by Isaac Ehrlich. Studies support a positive relationship between poverty (absolute or relative) and property crime (such as Braithwaite (1979); Danziger and Wheeler (1975); Danziger (1976); Gillespie (1976); Jacobs (1981); Blau and Blau (1982); DeFronzo (1983); Howsen and Jarrell (1987) and Jarrell and Howsen (1990).

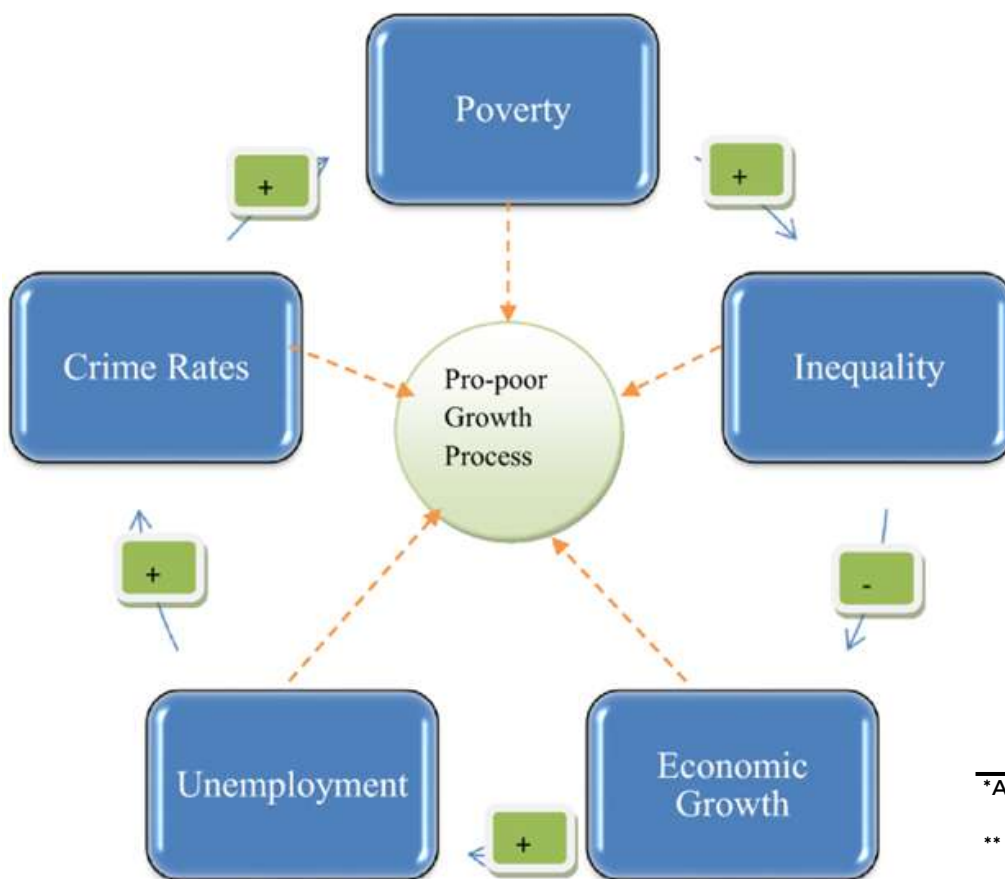
Solutions to the problem taken by the government

- Inequality makes it difficult for people from the bottom of the pyramid to access good education and health, this leads to poor education in their children, which makes poverty to pass on to the next generation. To stop the wheel government needs to focus on free and quality education and medical services, especially in poor sections of the city.
- Invest in public services, including water, electricity, and childcare, to provide a better quality of life.
- Focusing on the development of skills in the working population to make them employment worthy. Schemes like Skill India can play a vital role.
- Progressive taxation, where corporations and the richest individuals pay more to the state in order to redistribute resources across society. The role of taxation in reducing inequality has been clearly documented in OECD and developing countries. Tax can play a progressive role or a regressive one, depending on the policy choices of the government.
- There is a need for Universal Income Support. Economic Survey 2016-17 has suggested replacing all current cash transfers with universal basic income. The survey wants UBI to replace and not supplement the existing social welfare, and anti-poverty schemes like MGNREGA, PMJSY, etc.
- Making technology cheaper and deepening its penetration. Penetration of UPI and digital transactions has helped many small-scale businesses to grow, and government should work more on financial inclusion.
- Mudra Loan under PMMY: Under this scheme loan amount of up to Rs. 10 lakh is offered to women who want to start their own business or expand the existing one. Since women are marginalized of the marginalized in Indian society, it helps to bring women into the financial system

- Last but not least, making the eldest woman as head of the family on the ration cards not only helps to guarantee food security but also helps to change the mindset of society towards women

Conclusion

Inequality in society has always been a problem, and it leads to degradation in society in form of poverty, domestic violence, and criminal activity. Kuznets Curve tells us that with economic growth in the initial phases, there is an increase in inequality in the society in developing countries, but as the country transits from developing to developed there is a decline in inequality. Our country is still in the developing phase, and hence we are witnessing a rise in inequality. There are some solutions to the problem as having direct benefit transfer schemes, distribution of food grains to marginalized sections of society, investing in labor-intensive work like infrastructure development, focusing more on the development of skills, and progressive taxation system.



*Assistant Professor, Department of Design
 ** MTech, Department of Climate Change

Marine Plastic pollution and tackling it

KID: 20220316

***Dr Shiva Ji, **Mr Zeeshan (L-R)**



Different types of plastic pollution are found in all areas of the oceans. For example - Shoreline plastics, sea surface plastics, plastics in marine organisms, sea floor /sediment plastics, water column plastics. [1]

In the context of India, tackling marine plastic pollution is going to increase in the near future. Some of the data are:-

According to a 2017 study, the Odisha coast has the lowest quantity, and Goa coast has the highest quantity of beach debris. The Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) have issued the notification asking manufacturers, suppliers and consumers of single-use plastic items to scrap and phase them out and switch to greener and sustainable alternatives. [2]

The following plastic items have been banned from July 1, 2022: Balloon sticks; cigarette cling film packs; cutlery items including plates, cups, glasses, forks, spoons, knives, trays, earbuds, sweet boxes, candy and ice cream sticks, invitation cards, polystyrene for decoration and PVC banners measuring under 100 microns. [2] The ban includes not just the use of plastic items but also their production. Plastic bags of thickness less than 120 microns will also be phased out from December 31, 2022. Thousands of other plastic products - such as plastic bottles - are however not covered by this ban.[2]

Like roads and streets, our coasts and beaches too are littered with various types of plastic. Experts believe that approximately 80 percent of the debris found in the oceans originates onshore. [2] According to a 2017 study titled Prevalence of marine litter along the Indian beaches, Odisha coast has the lowest (0.31 g /m2)

quantity, and Goa coast (205.75 g / m2) the highest quantity of beach debris. [2] Quite surprisingly, the archipelagic coasts of Andaman's, as well as Lakshadweep had more trash than Kerala, Tamil Nadu, Andhra Pradesh, Odisha and West Bengal. Litter on Goa's beaches can be primarily due to tourism and entertainment-related activities.



This is the ocean clean up latest invention which collects approx 50000 kg of trash from rivers each day

2

However, fishing-related activities also contribute to beach litter. According to government data, there are 16 fishing villages in North Goa and 23 in South Goa. [2].

Nearly 12,000 people (according to 2010 data) are actively engaged in fishing. By analyzing beach debris, the research group found that nylon nets / fishing lines (group A-Nylon / HD ropes/fishes pieces / long lines) registered the highest mean (75.67 g / m2) in Goa and the lowest mean (0.01 g / m2) in West Bengal.[2]

A maximum of 543 g / m2 debris from the Group-A items have been found in Goa beaches. For Group-B items, which include Plastics (covers, carry bags, sachets, PET bottles like beverages, drinking water, medicine etc., containers of milk, creams, oil, ointments, toothpaste etc.) it was 110 g / m2. [2]

It is apparent that fishing and tourism-related activities are equally responsible for litter generation on the beaches of Goa. Many of the items listed in these groups have now been banned in India. [2] The most effective way to minimize plastic pollution is to stop it from entering the oceans. Beach cleanup campaigns can make a positive difference if done continuously.

Conclusion

It is important to reduce marine plastic pollution. Plastic pollution is a widespread problem affecting the marine environment. It endangers the health of the ocean, the wellbeing of marine life, the safety and quality of food, human health, coastal tourism, and it fuels climate change. It is not necessary that all the time we take action after the scenarios get worse, we need to take action before the plastic enters into the marine environment. It should be in our daily life routine to take care of this case and should limit us from polluting the oceans and beaches, etc. Various techniques are there in the market to clean up the oceans but what if these techniques are not even needed in future if we are making continuous effort to take care of our marine environment.

*Assistant Professor, Department of Design
** MTech, Department of Climate Change



1

Group-C items containing synthetic slippers/footwear (other than leather items) were 110g / m2.[2]. Group D items that included glass bottles, electric bulbs, and CFL bulbs had 500g / m2. Group-E contains e-waste (TV / computer

It shows the Ganga river pollution in Varanasi.

Everything is not perfect but you can try to make it perfect

KID: 20220317

Nitin Agarwal

My name is **Nitin Agarwal**; I currently, work as a **Senior Member of the Technical Staff at Salesforce**. I completed my **Masters in Computer Science and Engineering at IIT Hyderabad in 2014**. My interests are in the fields of Big Data, Distributed Systems and Algorithms. In my free time, I like to play Badminton and Football.

I would say destiny made me join IIT Hyderabad. I come from a very lower-middle-class family, and I had no intention of doing an MTech. I just wanted a job and appearing for the GATE exam was a backup plan. In the last semester of my BTech, I got a job at NEC HCL Noida and secured 325 AIR in the GATE exam. I was in a dilemma of whether I should go for a job or go for a master's. Thanks to my mother, who suggested that I should go for masters irrespective of the financial condition of the family. During counselling, I applied for almost all old IITs and IIT Hyderabad. I was selected in a few, but I decided to join IIT Hyderabad because it had very young and dynamic faculties, and there was an edge for Computer Science because of its proximity to Software companies.

During my time at IIT Hyderabad, I enjoyed almost all subjects, particularly Network Engineering by Dr. Kotaro Kataoka and Advanced Data Structure and Algorithms by Dr. Naveen Sivadasan. Network Engineering gave me the opportunity to understand and improve the IITH networking infrastructure.

In extracurricular activities, I was involved with the PRANET (Practical Networking) group, responsible for research in network and improvement. This also gave me the opportunity to interact with more students and staff. I developed my research instinct at IIT Hyderabad.

IIT Hyderabad education and training helped me in learning the Fundamentals of Computer Science with hands-on labs. If you are good with basics, it always gives you an edge.

My journey at IIT Hyderabad was beautiful. I enjoyed each and every moment of my time there, played a lot of games and made friends for life. I still remember in my first assignment I got 20/20, it gave me the belief that I will not be lost in a crowd. Obviously, getting Academic excellence award in 2013, Institute Silver medal in 2014 would always be special for me.



A message that I would like to convey to the the existing student folk @ IIT Hyderabad is "Everything is not perfect but you can try to make it perfect. Don't focus just on academic life, also focus on extracurricular activities, take care of yourself, family and friends. Don't just do assignments, try to solve problems."

The best thing about IITH is it has a strong focus on research and innovations. We should keep doing the same, also having strong collaboration from corporates and alumni would help more.

I can be reached at nitinagarwal@alumni.iith.ac.in



"Try to give something back to the society and institute. Your contributions be it time, money, guidance can have a multiplier effect."



"Everything is not perfect but you can try to make it perfect. Don't focus just on academic life, also focus on extracurricular activities, take care of yourself, family and friends. Don't just do assignments, try to solve problems."

Vice President, IITH Alumni Association
(2021-2023)

Startup Stories

ALOG TECH

KID: 20220318

ALOG is a deep tech startup developing autonomous systems to improve productivity in logistics, retail, and manufacturing industries.

Raghuram Nanduri, founder of ALOG has worked for around 20 years in various roles in large tech companies and a tech startup. It was a rewarding experience, but the urge to innovate and build a tech startup grew stronger. Initially, he explored supporting other startups as an advisor and angel investor, but soon he found founded his own company and followed his passion.

During his career, he worked for several years providing software solutions related to warehousing and transportation. He spent considerable time in warehouses and distribution centers around the world and saw first-hand their operational challenges and problems, especially in e-commerce order fulfillment. He saw the opportunity for automating warehouse processes using intelligent, flexible, and affordable robots. Amazon acquiring Kiva to automate their fulfillment centers convinced him of the immense potential.

Autonomous Carts for Distribution Centers (ACDC®), a product of ALOG TECH, are autonomous mobile robots designed to operate safely within warehouses. ACDC® uses patented computer vision and AI technologies to map the facility and navigate autonomously. Autonomous Carts are multipurpose and can be used for a variety of tasks, including order picking,

inventory putaway, shelf stock replenishment, cycle counting, etc., and also as shuttles.

They can be configured for any process specific to the operation and customized to meet unique requirements. With ACDC, warehouse workers spend less time walking and pushing carts, thereby dramatically increasing productivity and throughput.

Currently, Alog's mobile robot ACDC is being tried by a few leading companies in India for their warehousing solutions. The robot assists human workers in carrying the parcels from shelves to checkout points in an efficient and time-saving manner. The feedback so far has been positive, and prospects are evaluating the benefits of deploying their robots. Their solution will help them fulfill more orders in less time and cost, thereby giving them a competitive advantage. Alog plans to raise capital soon to accelerate its go-to-market and expand nationally and globally.



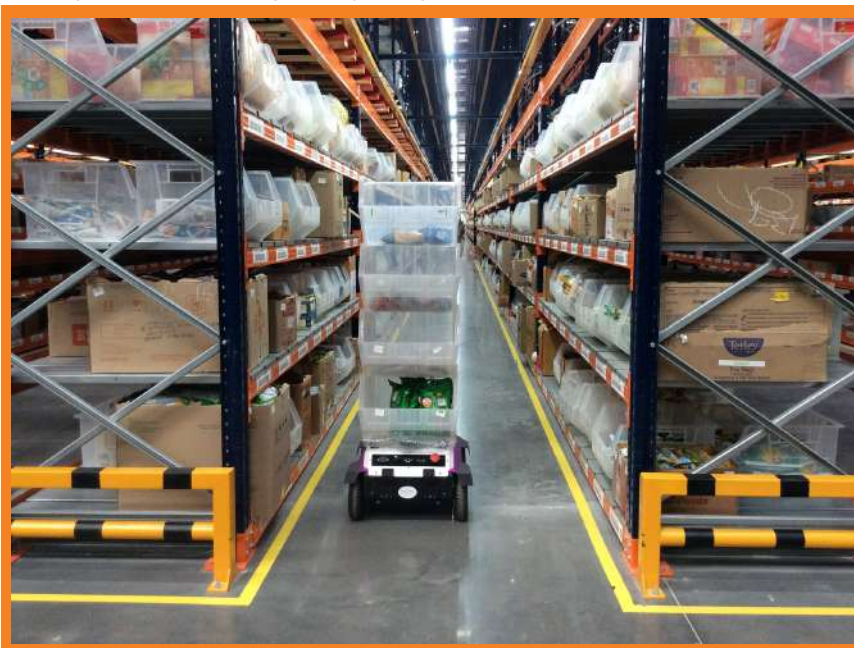
ALOG Omni front

ALOG is a deep tech startup developing autonomous systems to improve productivity in logistics, retail, and manufacturing industries.



ALOG Omni rear

Autonomous Carts for Distribution Centers (ACDC®), a product of ALOG TECH, are autonomous mobile robots designed to operate safely within warehouses.



Mr Keyur Punjani
 Manager-Programs
 iTIC Incubator, IITH

Chemistry dept building at IIT-H inaugurated

G+5 building has built-up area of 10,063 sqm; floor plate area of 2,146 sqm

HANS NEWS SERVICE HYDERABAD

In a bid to add modern infrastructure and cutting-research facilities, the Chemistry department building at IIT-Hyderabad was inaugurated by Prof. Govardhan Mehta, University Distinguished Professor, Dr Kallam Anji Reddy, Chair, the University of Hyderabad at IIT-H was the chief guest.

An IIT-H release said on Thursday that the infrastructure inaugurated is part of the campus development project under the broader India-Japan collaboration through the JICA.

Congratulating IIT-H, Prof. Mehta said, "We exist, thanks to molecules like ammonia, and as a chemist, we should see what, why and how systems can be adopted in Chemistry to ensure a sustainable future. I urge all of you, being in this privileged place of interdisciplinary nature, to do your bit to contribute to India's goal of being Carbon Neutral by 2070."

Expressing his joy, guest of honour Dr BVR Mohan Reddy, Board of Governors, IIT-H, said, "We should have



an attitude to do research and publication that is the result and application-oriented, aligns with future and benefits society at large.

Welcoming the gathering, Prof B S Murty, director of IIT-H, said, "with 280 enthusiastic faculty and excellent students, IIT-H has been doing exceedingly well in academics and research, which is reflected in terms of various rankings. I am delighted that the construction activity of Phase II is going well, the Department of Chemistry has got its new building ready for occupation. I congratulate the department and wish that they grow significantly in the near future in terms of research, technology development and new academic programmes." Prof G Satyanarayana, HoD, Chemistry, introduced the chief guest, Prof KVY Subramaniam, Dean (Planning), proposed a vote of thanks.

struction activity of Phase II is going well, the Department of Chemistry has got its new building ready for occupation. I congratulate the department and wish that they grow significantly in the near future in terms of research, technology development and new academic programmes." Prof G Satyanarayana, HoD, Chemistry, introduced the chief guest, Prof KVY Subramaniam, Dean (Planning), proposed a vote of thanks.

Morning India, July 9, 2022

Students reach stratospheric heights - Blue Blocks school collaborates with IIT Hyderabad to launch Space Lab

HYDERABAD - Blue Blocks Montessori School, a K-12 school at Hyderabad collaborates with IIT Hyderabad to launch a new design their Space Lab and Science Lab for its students.

"The sky is the limit is quite literal for the students of Blue Blocks, a leading Montessori-based school in Hyderabad, when it comes to exploring the limitless possibilities of learning, particularly in science. During the series of interactive programs, the school has been in the process of setting up a Space Lab in collaboration with the Department of Design, IIT Hyderabad.



In this project, the founders of selecting the students of space, starts right from the ground level. The school has collaborated with the scientists of the Department of Design, IIT-H to plan and design the Space Lab within the premises of the school by getting involved right from the planning stage. Students become an integral part of the process and the project.

Blue Blocks has always strived to provide its students a learning that goes beyond the prescribed syllabus. Pavan Gopal, the founder and his able team believe that the best form of learning is outside the walls and from life itself. The world is a vast and unexplored territory. We are highly excited about the idea of collaborating with IIT-H to launch an exciting opportunity for Blue Blocks children to work hands-on with IIT scientists and sharing their design ideas while building their Space Lab." Pavan Gopal said.

Prof. Srikar, who is guiding the efforts through the Department of Design at IIT Hyderabad said that the idea of Space Lab for children is very interesting and through unique participatory approach this will be

opened to students to subjects such as drone making and AR/VR, where students can use their imagination to build the projects - such as STEM and finance but are encouraged to explore their potential in other fields. Some examples of such. The three projects had elaborate planning ideas and were presented to the management of Blue Blocks.

To kick off the Space Lab project, the school has collaborated with IIT Hyderabad's Department of Design team. This is a first-of-its-kind Space Lab to be set up in a school. It is a departure from the norm where children are kept away from such kind of learning. Blue Blocks also signed the agreement with IIT-H to launch a joint management of Blue Blocks.

The idea of Blue Blocks are not just being realized for the future; they are from the opportunity to create a future. Based among the leading schools in Hyderabad, Blue Blocks is a pioneering school and one of the few offering a pure Montessori-based education curriculum and Gender-affirmation. Established in 2009, Blue Blocks offers a strong and alternative learning and research-oriented, diversified analysis, based on learning tool of laboratory like.

Blue Blocks is an authorized Montessori School offering programmes for the ages of 18 to 14 years, from Pre-primary to High School. Blue Blocks upholds an application-based learning and research-oriented thinking building students to gain experiential learning. Blue Blocks strongly believes in providing a rich and meaningful learning environment to make children world-ready.

The Times of India

IIT-H signs MoU with Japanese firm

TIMES NEWS NETWORK

Hyderabad: The Indian Institute of Technology, Hyderabad (IIT-H) and Beyond Next Ventures India Pvt Ltd (BNVI), Bangalore — which has its headquarters in Tokyo — signed an MoU to extend academia and industry cooperation.

The MoU was taken up as part of a 'Japan Connect' programme which is a distinctive strength of IITH.

B S Murty, director, IITH, said: "The MoU between IITH and BNVI is an iconic achievement to prove that the Indo-Japan collaboration has entered its next stage. The collaborations between the two countries are broader and more diverse, where startups and their ecosystems are the emerging key factors. I strongly support BNVI's philosophy about open innovation to foster social innovation from early-stage technologies in laboratories."

Tsuyoshi Ito, CEO, BNVI, called the collaboration an 'Indo-Japan Open Innovation Corridor'. "The DNA of BNVI in Japan is in nurturing ideas and talent at the high-end research and lab levels and converting them into successful ventures. We have been investing in India for the last two years, and it gives us immense pleasure to begin this new journey with IITH."

Hindustan Times

Greenko ties up IIT Hyderabad to set up school of sustainable science & technology

Rituraj Baruah | rituraj@hindustantimes.com

NEW DELHI: Renewable energy major Greenko and IIT Hyderabad have signed a memorandum of understanding (MoU) to launch India's first dedicated school for sustainable science and technology.

The school will be advancing research, education, and skills gaps caused by the imperatives of sustainable development.

The school will be advancing knowledge in the key thrust areas of climate change mitigation, artificial intelligence and

and later at polytechnics and schools," it said.

Greenko is working in consultation with the Ministry of Education, AICTE, NCERT, and NCVET to ensure GSSST both conforms to and advances learning in sustainable science and technology.

Union Minister of Education, Skill Development and Entrepreneurship, Dharmendra Pradhan said: "India cannot just be a consuming nation. We have to innovate and establish our own models for achieving self-sufficiency as well as for fuelling global welfare."

He said that India is going to play a leading role in the fourth industrial revolution and IIT

Hyderabad will play a major role in building the brand India globally and in carving out a better and prosperous future. Speaking on occasion, Anil Chakrabarti, Founder, CEO & MD, Greenko Group, said: "The vision and commitment to sustainability and idea to develop R&D centres of excellence that helps India build necessary technologies and skills in India led to this opportunity."

He added that GSSST aims to be the knowledge and human resource powerhouse for driving decarbonisation and sustainable development and pursuing twinning arrangements with globally reputed research and educational institutes.

The Hindu | July 8, 2022

IIT-H pact with NHA for highway infra boost

Transportation Research and Innovation Hub to work on contemporary, cutting-edge technologies

SPECIAL CORRESPONDENT HYDERABAD

The Indian Institute of Technology - Hyderabad (IIT-H) has entered into a Memorandum of Understanding (MoU) with the National Highways Authority of India (NHA) to establish a Transportation Research and Innovation Hub (TRI Hub), a Centre of Excellence that would work on contemporary and cutting-edge technologies for national highway in India.

The pact was signed on Wednesday. Dean (R&D), IIT-H, Kiran Kuchibhotla, "This is one of the pioneering in-



IIT-H professors with NHA officials after signing the MoU in Sangareddy district. -ANAND

itiatives of NHA to support state-of-the-art research in transportation through a CoE. We're confident in demonstrating new technologies in pavements and bridge infrastructure in partnership with IIT-H, said GM (Tech), NHA-NEE DPM, Ajay Sabharwal and EGM and RO, NHA Hyderabad, Krishna Prasad. "The new hub is pos-

sibly the first-of-its-kind in an IIT system, will complement the recently inaugurated test bed for the technology Innovation Hub for Autonomous Navigation and Data Acquisition Systems at the institute in demonstrating innovative technologies. It is going to bring a number of innovative technologies in transportation, road and infrastructure."

As part of this, professors Surya Prakash S, Umashankar B, Mahendra Kumar, Maheshwar, Shankar, Rastogi and Anil Agarwal, would work with M. Saride on 10 different innovative projects to deliver the objectives.

Milap

भारतीय प्रौद्योगिकी संस्थान में हिन्दी सप्ताह का समापन समारोह संपन्न

हैदराबाद, 20 सितंबर-(मिलाप न्यूज़) भारतीय प्रौद्योगिकी संस्थान, हैदराबाद में हिन्दी सप्ताह समारोह (14 से 20 सितंबर) का आयोजन किया गया। आज यहाँ जारी प्रेस विज्ञापन के अनुसार, हिन्दी सप्ताह का समापन समारोह आज आयोजित किया गया।

अवसर पर हिन्दी प्रकोष्ठ के संकाय प्रभारी डॉ. अनुपम गुप्ता ने स्वागत भाषण दिया। संस्थान के निदेशक प्रो. बी.एस. मुर्ति ने संस्थान के हिन्दी प्रकोष्ठ द्वारा किये जा रहे कार्यों की सराहना करते हुए भविष्य में ऐसे कार्यक्रमों हेतु हर संभव प्रयास करने को कहा। निदेशक द्वारा हिन्दी सप्ताह समारोह के दौरान आयोजित विविध प्रतियोगिताओं निबंध लेखन, कर्नालवीन शब्दवली, मुक अभिनय प्रतियोगिता एवं आर्यु भाषण प्रतियोगिताओं के विजेताओं को पुरस्कार स्वरूप प्रमाण-पत्र एवं स्मृति चिह्न प्रदान किये गए। अवसर पर संस्थान



भारतीय प्रौद्योगिकी संस्थान में आयोजित हिन्दी सप्ताह के समापन समारोह का दृश्य।

के कर्मचारियों एवं विद्यार्थियों द्वारा काव्य एवं हिन्दी प्रकोष्ठ के नवीन श्रौतारव पाठ एवं समीत कार्यक्रम आयोजित किये गए। हिन्दी प्रकोष्ठ के नवीन श्रौतारव द्वारा धन्यवाद ज्ञापित किया गया।

బిబిఆర్ మెకానిక్స్లో 'సూల్ ఆఫ్ ఇన్నోవేషన్'

- ఏర్పాటు చేయనున్న సైంటి, శిబిర్ల పొందే ప్రణాళిక
- నిర్మాణ అంచనా వ్యయం రూ.20 కోట్లు



బిబిఆర్ మెకానిక్స్ కిట్లకు అవకాశం ఉన్నప్పుడు, ఎంపీఎస్సీలను భవన వసూలు

అలాంటి, సంగతికి, ఇంకా ప్రారంభించిన దిగితో మరో ప్రతిష్టాత్మక కేంద్రం చేరనుంది. బిబిఆర్ మెకానిక్స్ కిట్లకు అవకాశం ఉన్నప్పుడు, ఎంపీఎస్సీలను భవన వసూలు చేసేది అంటుంటుంటుంది కానూ, అవి ఎప్పుడంటే ప్రాణం పోయిన, అది వ్యాపారవేత్తలను తీర్చిదిద్దడమే దీని ప్రధాన లక్ష్యం. బిబిఆర్ మెకానిక్స్ కిట్లకు సంబంధించి (cyient), శిబిర్ల పొందే ప్రణాళిక నిర్మాణం, నిర్వహణకు ముందుకొచ్చాయి. ఈ మొదటి దశలో 2022లో ఈ పొందే ప్రణాళికను ప్రారంభించడంతో అవకాశం ఉన్నప్పుడు భవన వసూలు చేయాలి. ప్రస్తుతం అవి ఎప్పుడంటే రూ.20 కోట్లు విలువైనవిగా ఈ కేంద్రానికి రూ.20 కోట్లు వెచ్చించనున్నారు. కార్పొరేట్ సహకారం అందడం ద్వారా బిబిఆర్ మెకానిక్స్ కిట్లకు సంబంధించి, మరో రూ.10 కోట్లను అందుకుంటుంది.

బిబిఆర్ మెకానిక్స్ కిట్లకు అవకాశం ఉన్నప్పుడు, ఎంపీఎస్సీలను భవన వసూలు చేసేది అంటుంటుంటుంది కానూ, అవి ఎప్పుడంటే ప్రాణం పోయిన, అది వ్యాపారవేత్తలను తీర్చిదిద్దడమే దీని ప్రధాన లక్ష్యం. బిబిఆర్ మెకానిక్స్ కిట్లకు సంబంధించి (cyient), శిబిర్ల పొందే ప్రణాళిక నిర్మాణం, నిర్వహణకు ముందుకొచ్చాయి. ఈ మొదటి దశలో 2022లో ఈ పొందే ప్రణాళికను ప్రారంభించడంతో అవకాశం ఉన్నప్పుడు భవన వసూలు చేయాలి. ప్రస్తుతం అవి ఎప్పుడంటే రూ.20 కోట్లు విలువైనవిగా ఈ కేంద్రానికి రూ.20 కోట్లు వెచ్చించనున్నారు. కార్పొరేట్ సహకారం అందడం ద్వారా బిబిఆర్ మెకానిక్స్ కిట్లకు సంబంధించి, మరో రూ.10 కోట్లను అందుకుంటుంది.

దేశ ప్రాధాన్యత నిర్వహణకు అందజేయనున్నట్లు ఇంకా అందించాలి గురువారం విడుదల చేసిన ప్రకటనలో పేర్కొన్నారు. 183లక్షల రూ. కేంద్రాన్ని అందుబాటులోకి తెచ్చేలా ప్రణాళిక రూపొందించారు. రెండోశరణం వాడేలో ఇలా సంయుక్త అధ్యయనం ఒక కేంద్రాన్ని నిర్మించడం ఇవే మొదటిది. అలాగే 2వ వాడే ప్రాంగణంలో నిర్వహించే భూమిపూజా కార్యక్రమానికి కేంద్ర విద్యా సైన్యబాధిపత్య శాఖ మంత్రి కర్ణాటకప్రధాన మంత్రి బెంగళూరులో హాజరు కానున్నారు. కొత్త ఉద్యోగాలను సృష్టించేందుకు అంతర్జాతీయ స్థాయిలో కేంద్ర మైనర్లను సైంటి పొందే ప్రణాళికను భవన వసూలు

Tech that! IITH-made drone can carry humans

SPECIAL CORRESPONDENT HYDRABAD

Pushing ahead in its research and development (R&D) activity, Indian Institute of Technology Hyderabad (IITH) unveiled a driver-less vehicle, drones that can carry humans and an autonomous moving cycle. India's first test-bed for autonomous navigation, meant for both ground and aerial vehicle testing, was also inaugurated.



IITH-Hyderabad students with the drone that is capable of carrying humans. *MOHA ARAF

Union Minister of State (independent charge) Science & Technology Jitendra Singh inaugurated the TIHAN test-bed for autonomous navigation on Monday and said it will be the destination for next-generation safe, sustainable and smart mobility solutions. TIHAN of IITH is recognised as a Scientific and Industrial Research Organisation by the department of Scientific and Industrial Research.

programmes to make India a destination for futuristic technologies, he added. IITH has been named Technology Innovation Hub in 'Autonomous Navigation and Data Acquisition Systems', a multi-disciplinary initiative.

The department of Science and Technology (DST) is setting up 25 tech innovation hubs across the country under National Mission on Interdisciplinary Cyber-Physical Systems, one of the many pro-

DST Secretary S. Chandrasekhar said, "Today, IITH director B.S. Murty and professor Rajalakshmi have shown how drone size can be increased so that even humans can be carried in it. This drone and autonomous vehicle tech will be the game-changer, specially when you want to send the vehicles to places where humans cannot enter."

The Hans India

IIT, Hyd celebrates 11th convocation

- The convocation theme was celebrating India's Azadi Ka Amrit Mahotsav
- A total of 873 students are awarded 884 degrees
- 1st MTEch graduate batch from Centre of Interdisciplinary Programme
- Shah Nisarg Pankaj from the Department of CSE received the President of India Gold Medal



HANS NEWS SERVICE HYDRABAD

INDIAN Institute of Technology Hyderabad celebrated its 11th Convocation on Saturday, and Prof Subra Suresh, President, NTU Singapore, attended as the chief guest.



President, NTU Singapore

Congratulating IITH graduates Prof Subra Suresh, President, NTU Singapore, said, "Never underestimate the power of one university, one individual, one idea, one act of courage, or one programme to have a significant influence on local and global society. Contemplate, cultivate, and elevate your global and historical perspective with patience and compassion, always. Combined with the strong education you have received from IIT Hyderabad, you will have an impact not just on your local community or country but on the entire humanity. To maximize the power of one, that is, you; it is critical that your perspectives do not focus only on the individual but also on the collective, not just on the local community but equally on the implications of your actions on the world around you. This requires broad-mindedness and convictions grounded in principles and values."

Dr BVR Reddy, Chairman, Board of Governors said, "As you step out of the precincts of this prestigious institute, you are launching yourself on a voyage of self-discovery. You will explore the luxurious portfolio of opportunities available to you as India steps into the Amrit Kaal of Independent history and co-creates Aatma Nirbhar Bharat.

He said that in the background of a dynamically shifting world scenario, the knowledge you have accumulated this far alone will not take you through life and bestow success. He stressed on inculcating the virtue of continuous learning and the ability to derive learning from generic situations will be the key to enduring success. "It is not always about winning; it is about learning and reinventing yourself continuously," he said.

Cheering the graduates with the urge to keep the IIT Hyderabad flag high, Prof B S Murty, Director of IITH has pre-

sented the Institute Report for Academic Year 2021-2022 and added, "While attempting to portray the journey of IITH through various waves of the pandemic and its after-effects, I realised that we excellently leveraged the digital prowess to overcome the hollowness created by the Pandemic.

The transformation from life to online was well managed to be contactless yet even more connected." He said, every wave of life teaches a lesson; we have learned to nail the situation with resilience, solidarity, and innovation. "Last year, we crossed a major milestone successfully graduating 10 batches of students year after year, increasing our number of students and building the infrastructure necessary for it. That from the current year onwards we will be celebrating the success of the Decennial batch of graduates every year," He said.

A total of 873 students are awarded 884 degrees, comprising UG, PG and PhD, with 4 Gold Medals and 32 Silver Medals.

IITHians adored the specially designed Pochampalli Stoles this year too, as part of the IITH's historical tradition of getting connected to the culture of the State of Telangana.

The Pioneer

FIRST TIME IN INDIA

Researchers develop 3D printed artificial cornea

PHS ■ HYDRABAD

For the first time in India, researchers in Hyderabad have successfully 3D printed an artificial cornea and transplanted it into a rabbit eye. Researchers from IIT Hyderabad and the Centre for Cellular and Molecular Biology (CCMB) have collaborated to develop the 3D printed cornea from the human donor corneal tissue.



The cornea is the clear front layer of the eye that helps focus and aids in clear vision. Corneal damage is a leading cause of blindness worldwide with more than 1.5 million new cases of corneal blindness reported every year. Corneal transplantation is the current standard of care for cases with severe disease and vision loss. Unfortunately, there is a huge gap between the demand and supply of donor corneal tissue worldwide, which is further

complicated by lack of adequate eye banking networks, especially in developing countries. Human tissue based 3D printed corneas are not only safer but are also more affordable for patients with corneal blindness in India. Each donor cornea can aid in preparation of three 3D printed corneas. In addition, the cornea can be printed in various diameters from 3 mm to 13 mm and can

be customised based on the specifications of the patient. This can potentially offer a solution to the shortage of donor corneas for transplantation and has great clinical significance. However, printed corneas will need to undergo further clinical testing and development before they can be used in patients, and this may take several years.

Andhra Prabha

బిబిఆర్ మెకానిక్స్లో సంఖ్య వర్క్ షాప్

• బిబిఆర్ విద్యార్థులకు వృత్తి విద్యలో నైపుణ్య అభివృద్ధిలో శిక్షణ



బిబిఆర్ మెకానిక్స్లో వర్క్ షాప్లో బిబిఆర్ విద్యార్థులకు శిక్షణ ఇవ్వనున్న ప్రొఫెసర్లు

బిబిఆర్, జూలై 18, అయిదవ యంత్రాంశ పరిశోధన కేంద్రం సూపర్ కిట్లకు అవకాశం ఉన్నప్పుడు, ఎంపీఎస్సీలను భవన వసూలు చేసేది అంటుంటుంటుంది కానూ, అవి ఎప్పుడంటే ప్రాణం పోయిన, అది వ్యాపారవేత్తలను తీర్చిదిద్దడమే దీని ప్రధాన లక్ష్యం. బిబిఆర్ మెకానిక్స్ కిట్లకు సంబంధించి (cyient), శిబిర్ల పొందే ప్రణాళిక నిర్మాణం, నిర్వహణకు ముందుకొచ్చాయి. ఈ మొదటి దశలో 2022లో ఈ పొందే ప్రణాళికను ప్రారంభించడంతో అవకాశం ఉన్నప్పుడు భవన వసూలు చేయాలి. ప్రస్తుతం అవి ఎప్పుడంటే రూ.20 కోట్లు విలువైనవిగా ఈ కేంద్రానికి రూ.20 కోట్లు వెచ్చించనున్నారు. కార్పొరేట్ సహకారం అందడం ద్వారా బిబిఆర్ మెకానిక్స్ కిట్లకు సంబంధించి, మరో రూ.10 కోట్లను అందుకుంటుంది.

యేర్ శ్రీధర్ మెడికల్ విద్యార్థులకు మొదటిసారిగా శిక్షణ ఇవ్వనున్న ప్రొఫెసర్లు

యేర్ శ్రీధర్ మెడికల్ విద్యార్థులకు మొదటిసారిగా శిక్షణ ఇవ్వనున్న ప్రొఫెసర్లు



Campus Corner

Research Highlights



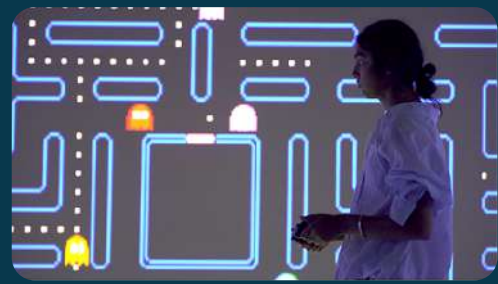
IITH refining the future of fabrication at Central Workshop on Campus.

Read more:

<https://pcr.iith.ac.in/files/pressrelease/CWF.pdf>

Video Abstract:

<https://youtu.be/EFTsJ0ZmKcl>



Ms Vibhuti Sagar, M.Des (2020 - 22), Dept of Design, IITH, has created "Connect: Recreating Gaming Experience Through Spatial Augmented Reality" under guidance of Prof Prasad Onkar.

Video Abstract:

<https://youtu.be/CvP8k5YDIyQ>



5G Testbed has been inaugurated by Prof B S Murty, Director, IITH.



IITH denoted Thotis' Tradition - An age-old Tattooing Technique

Read more:

<https://pcr.iith.ac.in/files/pressrelease/DTA.pdf>

Video Abstract:

<https://youtu.be/-5Ae4u-vfgE>

Campus Corner

Announcements



Dept of BME & Physics, under the aegis of the Centre of Interdisciplinary Program, IITH, launched an AERB approved 3 years MSc in Medical Physics in collaboration with Basavatarakam Indo-American Cancer Hospital & Research Institute.

Video

Abstract:

<https://youtu.be/GEFeHUzWd5I>

Read

more:

<https://pcr.iith.ac.in/files/pressrelease/MMP.pdf>



IITH supports India Semiconductor Mission with 1st of its kind BTech in Electrical Engineering.

Electronic Media Release:
<https://youtu.be/sF-9X9OShcM>

For details & admission, visit:

<https://ee.iith.ac.in/>

Read More:

<https://pcr.iith.ac.in/files/pressrelease/EICDT.pdf>



IITH has announced a short course on "UNDERSTANDING STRUCTURAL STEEL DESIGN- A Stability Perspective" by Prof Mahendrakumar Madhavan, Department of Civil Engineering, IITH.



Department of CSE, IITH has announced a course, "An insightful look at Deep Learning for Computer Vision" by Prof Vineeth N Balasubramanian.



Prathama-diksha: IITH now offers a Certificate Program in the Sanskrit Language in collaboration with Central Sanskrit University (CSU), New Delhi

Read more:

<https://pcr.iith.ac.in/files/pressrelease/SC22.pdf>

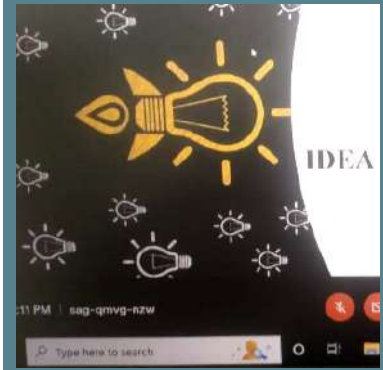
Video Abstract:

<https://youtu.be/OsDDm1MBtLk>

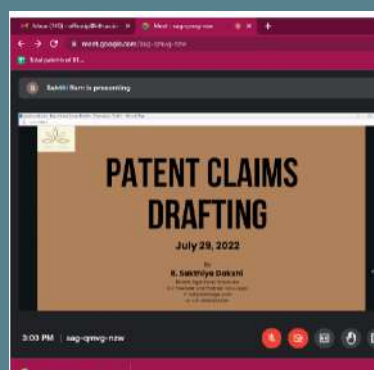


IITH hosted the American Chemical Society (ACS) for a Skill-Building Workshop on "Master the Publishing Process".

Department of Entrepreneurship and Management, under the aegis of IIC, & IITH organized a session on "Nurturing Teacher Effectiveness by Innovating Oneself" at DAV School, IITH Campus by Dr M P Ganesh, Head (EM) & Associate Professor, IITH.



IPFC, IITH conducted a webinar on "Introduction to Patents" by Mr A E Kumar, Patent Analyst, IITH



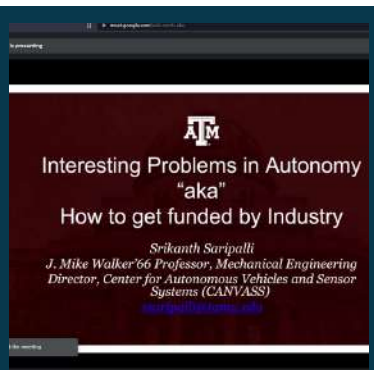
IPFC, IITH conducted a webinar on "Patent Claims Drafting" by Ms R Sakthiya Dakshi, Partner and Co-Founder, Taru Legal.



ECell, IITH in collaboration with Edufabrica conducted the offline workshop on 4 amazing topics.



Malla Reddy Narayana hospitals organized a session on Cancer Awareness by Dr Swapna Jilla, Senior Consultant and HoD, Radiation Oncology.

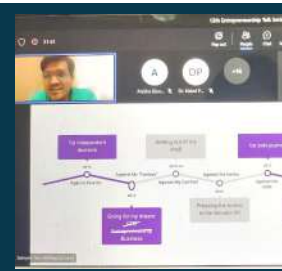


IITH organized a talk on by Srikanth Saripalli, Professor, Mechanical Engineering dept & the Director for Center for Autonomous Vehicles and Sensor Systems at Texas A&M University.

Civil Engineering Society, IITH held a talk on "Seismic Behavior of Concrete Columns Reinforced with Hybrid Reinforcements" by Dr Girish Narayan Prajapati, Postdoctoral Researcher at SFTe Inc. Canada, & Mitacs Postdoctoral Fellow at Universite de Sherbrooke, QC.



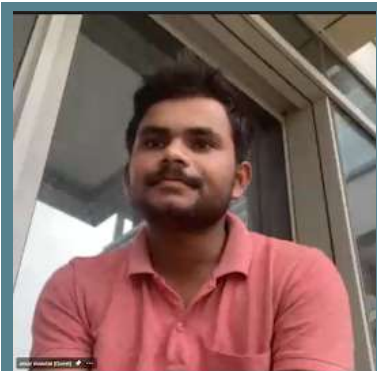
Tinkerers Lab organized a session on Tinkering 101, Software Walk @IITHHyderabad



Department of Entrepreneurship and Management under the aegis of IIC, IITH hosted the 13th session of the Entrepreneurship Talk series by Mr. Samyak Jain, Founder & CEO at MyWays.ai, an AI-empowered job tech platform.

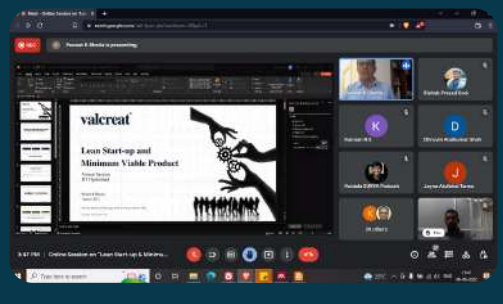


IITH has conducted the very first EML event of this academic year titled "Tackling the Diabetes Epidemic: Some Success Stories from India" by Viswanathan Mohan, Chairman and Chief of Diabetology at Dr Mohan's Diabetes Specialities Centre, & President and Director of the Madras Diabetes Research Foundation.



Civil Engineering Society, IITH has successfully conducted its first event, Alumni talk of the session 2022-23, by Mr Amar Mandal.

Department of Entrepreneurship and Management, IITH under the aegis of IIC, has organized an Online Session on "Lean Start-up & Minimum Viable Product" by Mr Puneet K Bhatia, Managing Partner and Founder, Valcreat Industry X.O.



IITH organized a one day webinar on "E Waste Management in India: Current Challenges and Future Opportunities".

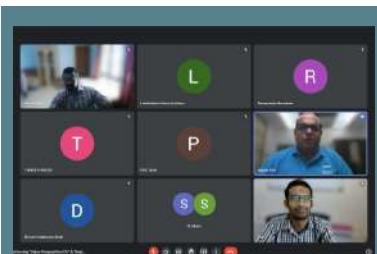


IPFC, IITH has organized a webinar on "Patents" by Mr A E Kumar, Patent Analyst, IIT Hyderabad

Dept of E & M, IITH under the aegis of IIC organized Tenth session of Entrepreneurship Talk series titled - Online Session on "Accelerators/Incubation - Opportunities for Students & Faculties - Early-Stage Entrepreneurs", by Dr Nandita Sethi, Founder & MD, The Entrepreneur Zone.

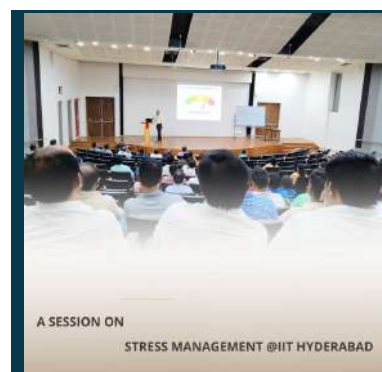
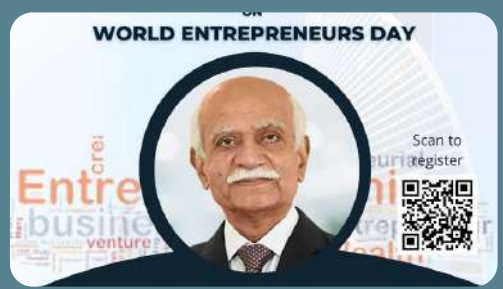


First offline session has been conducted by Finance and Consulting Club (FCC), IITH, titled "5 Steps to Personal Finance"



Dept of Entrepreneurship and Management, IITH under the aegis of IIC has organized an Online Session on by Mr Vagish Dixit, Chief Engagement Officer - Alpha Global and Managing Director & Partner of Alpha India.

Department of Entrepreneurship and Management IITH, under the aegis of IIC, held a talk titled "Special Talk on World Entrepreneurs Day" on the occasion of World Entrepreneurs Day by Dr B V R Mohan Reddy, Chairman, Board of Governors - IITH, Founder Chairman - CYIENT.



Commodore Manohar Nambiar (Retd), Registrar IITH, shared some secrets of Stress Management in an interactive session.



Dept of EM under the aegis of IIC_IITH @IITHyderabad organized a lecture by Dr Smiju Sudevan on a variety of topics related to project management required to be understood for an industry ready project manager.

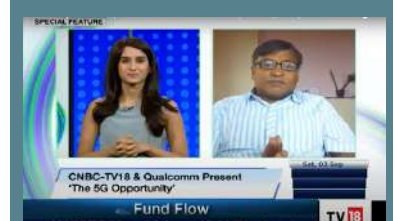


Department of Entrepreneurship and Management IITH under the aegis of IIC has organized a talk titled "Innovation and Translational Research: Scope and Realisation at IITH" by Prof Mohan Sangeneni, Advisor - Innovation & Translational Research, IIT Hyderabad and Emeritus Professor, IISc Bengaluru.



"Women Leadership" an online workshop of 15-hours has been held by Dr M P Ganesh, Associate Professor, Department of Liberal Arts and Head, Department of Entrepreneurship and Management.

Dept of E & M, IITH, under the aegis of IIC, organized the eleventh session of the Entrepreneurship Talk series on "Innovation/Prototype Validation - Converting Innovation into a Startup" by Mr Nrupal Das, Principal Product Manager at Paysafe.



IITH has been a part of the panel discussion on "5G global standards" by CNBC. Prof Kiran Kuchi, Department of Electrical Engineering, IIT Hyderabad was one of the esteemed panelists. Link to the panel discussion: https://youtu.be/Kxt7Cjm_oeg



IITH organized an orientation session on the occasion of World Physiotherapy Day 2022 with Ms Avvari Vedavani, MPT - Orthopedics, Physiotherapist, IITH.

Prof Bernard Chenevier, a CNRS Director of Research (France), Professor and Senior University Research Administrator (URA) at Okayama University, Japan, delivered a Distinguished Lecture and Interacted with IITH faculty members.



International Workshop on "Quantum Information in QFT and AdS/CFT-III" organized in hybrid mode at IITH.



IITH & NIPER Hyd conducted an outreach event on the theme: Energy & Sustainability as a part of SERB Scientific Social Responsibility and in association with the INYAS Hyderabad chapter.

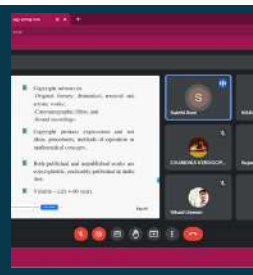
Prof Masakazu Tani and Dr Tomo Inoue from the Department of Environmental Design, Kyushu University, Japan visited the Department of Design and VxD lab, IITH. They interacted with the students and faculty and discussed increasing prospective academic and research engagements.



Department of Entrepreneurship & Management, IIC, IITH organized 12th Lecture as part of the Entrepreneurship Talk Series by Mr Shiladitya Mallik, Co-Founder and Chief Business Officer of SmartWinnr.



IITH took part in the Noteworthy Session at the 13th Edition of Green Co Waste & Resource Management Summit with Dr. Shashidhar, Professor, IITH as a Co-Panelist.



IPFC, IITH has organized a webinar on "COPYRIGHTS" by Ms R Sakthiya Dakshi, Partner and Co-founder, Taru Legal.



Shri Dharmendra Pradhan, Hon Minister of Education, laid the foundation stone for BVR Mohan Reddy School of Innovation & Entrepreneurship (BVRSCIENT).

Link to Hybrid Event:

https://youtu.be/srMuE_eONOM

Read more:

<https://pcr.iith.ac.in/files/pressrelease/BVRSCIENT.pdf>



Technology Incubation Park building has been inaugurated by Shri Dharmendra Pradhan, Honorable Minister of Education. TIP has a total built-up area of 14313 sqm, consisting of 11 blocks with a G+5 structure, is ready to support the incubation activity at IITH.



Lenskart conducting a 4-days free eye check-up camp for the IITH Community



Shri Dharmendra Pradhan, Honorable Minister of Education, also inaugurated the Research Centre Complex building. RCC is a five-storied (G+4) building with an attractive oval shape with a total plinth area is 12,325 Sqm.



Hon'ble Minister of State for Science & Technology & Earth Sciences, Dr Jitendra Singh, inaugurated 1st Testbed for Autonomous Navigation at IITH.

Event Link:

<https://youtu.be/IUvcs40w9NQ>

Read more:

<https://pcr.iith.ac.in/files/pressrelease/TTI.pdf>



Blue Blocks school collaborated with IITH to launch Space Lab.

Read More:

<https://prn.to/3anodi7>



IITH retained its Top 10 in NIRF-2022 & Now became the Top-15 institute in the country.

Electronic Release:

<https://youtu.be/cz17keH1fHc>

Read more:

<https://pcr.iith.ac.in/files/pressrelease/NF22.pdf>



Views of Dr Mayukh Pahari, IITH, on how JamesWebb looks back into the earliest years of the universe, being published in Mint Primer(Mint Daily Newspaper). He added that IUCAAstro is building Adaptive Optics to find exoplanets from India.



Tiny tots dressed up in different shades and hues of blue for Blue Colour Day Celebrations, DAV School, IITH.



Hybrid Classroom has been inaugurated at IITH by Astra Microwave Pvt. Ltd.



IITH has organized the Open Day To answer the Brainstorming and Perplexing questions, to make IIT aspirants decipher the path to reach the IIT Goal.



As part of Azadi ka Amrit Mahotsav celebrations, Hospital Office IITH has conducted a drive of Covishield precautionary dose for 247 students with the help of Kandi PHC and Sangareddy District Health officials.



IITH Alumni Meet has been conducted in the context of Gathering together to transform tomorrow and cherish the memories



Cookery Club Creativity session has been organized at DAV School, IITH Campus.



Suzuki Innovation Centre conducted "Japan hour" in Shiru-cafe, IITH, where they had a casual class of basic Japanese self-introduction and how to exchange business cards in Japanese style.



Department of Sports, IITH organized PRABHATPHERI marking the 75th year of Independence - Aazadi ka Amrit Mahotsav celebrations with "HARGHARTIRANGA ABHIYAN".

Video Abstract:
<https://www.youtube.com/watch?v=l48pmcKWnGE>



vineet N Balasubramaniam and his team has been the winners in AI research in DL Algorithms & Architecture category.



76th Independence Day has been celebrated with flag hoisting by esteemed Director, IITH, Prof B S Murty. Followed by recognition of Armed Forces of IITH (Staff & Students).

Video Abstract:
<https://www.youtube.com/watch?v=zoia0YXxIVo>



Dept of Sports, IITH celebrated the 75th year of Independence Aazadi ka Amrit Mahotsav with "FIT RUN COMPETITION HARGHARTIRANGA ABHIYAN".

Video Abstract:
<https://www.youtube.com/watch?v=NN3-j5si7tM>



IITH is pleased to present IITH Alma Connect - August 2022, a monthly dossier by Alumni Relations Office..



IIC, IITH participated in the IIC regional meet 2022.



IITH is honored to get one of DIA-CoE. Hon'ble Raksha Mantri has approved the setting up of 06 new DRDO Industry Academia-Centre of Excellence (DIA-CoE) at IITs.



The Chemistry Department Building has been inaugurated by Distinguished Professor Goverdhan Mehta at IITH.

Read more:
<https://pcr.iith.ac.in/files/pressrelease/CDB.pdf>
Electronic Release:
<https://youtu.be/HTuJnk4Ege8>



11th Convocation has concluded with the award of 884 degrees.

Snippet: <https://youtu.be/cMjWXp0RVA>
Broadcast: <https://youtu.be/zoxLCluIF4U>
Read more:
<https://pcr.iith.ac.in/files/pressrelease/CNV22.pdf>



Hockey Club, IITH organized a Hockey Exhibition Match on National Sports Day to commemorate the birth anniversary of Hockey legend, Major Dhyan Chand.



A Little share of blood can give many years of life to someone. NSS, IITH has organized a Blood Donation Camp in association with Niloufer Blood Bank.

Video Abstract:
<https://www.youtube.com/watch?v=GDtZeCeCm8M>



IITH has successfully conducted the plantation drive for the month of August 2022 by planting Allamanda and ganneru saplings (a total of 200 plants).



Suzuki Innovation Centre, IITH, conducted "Japan Hour" share the knowledge about bowing angles for each coaction, seating in a meeting room and a car, etc.



Carving from speck to the artistic Idol has been aesthetically visualized. Design Innovation Centre, IITH created a Virtual Museum on Cultural Artefacts of the Gond Community.

Video Abstract:
<https://youtu.be/PwsNDHTckwv>



North eastern University Delegates visited IIT Hyderabad to explore avenues of working together.



DAV School Students of IITH Campus have been taken on a Field trip to Fruit Research Station at Sangareddy.



IITH presented the Alma Connect - September 2022.



E-Cell, IITH conducted an event in collaboration with Amazon, the Amazon FindX Event.

Research Excellence Awards by Alumni 2022



Young Alumni of IITH instituted Research Excellence Awards to promote fellow students.
Read more:
<https://pcr.iith.ac.in/files/pressrelease/AA22.pdf>
Electronic release:
<https://youtu.be/OcVlgdUWrLE>



IITH has successfully conducted the plantation drive for the month of September 2022 by planting Delonix (Gulmohar), Pongamia Pinnata (Kanuga), Mango, Spatodia Campanalata, and Bahunia Balakania.



Delegates from NewYork University, Columbia University, George Washington University, & Boston Universities' Schools of Engineering visited IITH.



Hindi Cell, IITH commemorated the occasion of the Inauguration of Hindi Week celebrations.
Video Abstract:
https://youtu.be/C5tmwCH_Cg



Suzuki Innovation Centre organized an IIT-IIM Alumni meet in Tokyo. A total of around 100 people joined the event including current students from IIT Hyderabad and IIM Kozhikode, who came to Japan for a cultural tour sponsored by Suzuki.



Mitra and Mitri, indigenous Humanoids developed by Invento Robotics Bangalore, TiHAN, IITH & IIIT Dharwad.



A Creet & Meet Event has been conducted at IIT Bombay by IITH.



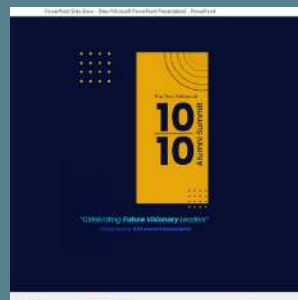
Hindi Cell, IITH commemorated the occasion of the Closing Ceremony of Hindi Week celebrations.
Program Broadcast:
<https://youtu.be/eNZKJ96Op5g>



5th Edition of Japan Day has been concluded IITH.
Read more:
<https://pcr.iith.ac.in/files/pressrelease/JD22.pdf>



MILAN 2022 Championship successfully concluded at IITH with Charaka immersed as Champion of Champions.



IIT Hyderabad Alumni Association Presented the 10/10 Alumni Summit - to celebrate IITH alumni efforts towards becoming visionary leaders in their respective fields.

Campus Corner

Campus Highlights



2nd Anniversary of Aksharamaala has been hosted at IITH.

Read more:

<https://pcr.iith.ac.in/files/pressrelease/AMIO.pdf>

Link to Program Broadcast:

<https://youtu.be/v1H7rS6fvk8>.



Dr M V Panduranga Rao, Dept of CSE & AI IITH, brought more clarities to the table at IT TRENDS PHONE IN LIVE by DD Yadagiri Telangana in Telugu.

Link to Program Broadcast:

<https://www.youtube.com/watch?v=g-IV2XiT2fQ>



IITH immersed into colors of nature in the Dandiya Ras this Navaratri.



Dandiya & Bathukamma celebrations by Students community @IITHyderabad.

Campus Corner

Collaborations



English and Foreign Languages University (EFLU)

IITH has exchanged an MoU with English & Foreign Languages University to support students to get accustomed to the foreign languages and be prepared for upcoming global opportunities on the way via various UG & PG programs at IITH with eminent global academic & industrial partners.

National Highways Authority of India

IITH Inks a Pact with the National Highways Authority of India (NHA) to develop cutting-edge technologies for Highway Infrastructure Building.

Read more: <https://pcr.iith.ac.in/files/pressrelease/NHA1.pdf>



Beyond Next Ventures India

Japan-based Beyond Next Ventures India joined hands with IITH to boost Entrepreneurship.

Read more: <https://pcr.iith.ac.in/files/pressrelease/BNV.pdf>

Call for Papers



IIMAD & IIT Hyderabad
invites
Original Research, Case Studies, Work & other insights on 'Cities and Internal Migrants' for 2nd Annual International Conference on "Internal Migrants in the Cities: Entangled lives" 30-31 December 2022 (Hybrid mode)

International Institute of Migration and Development, in collaboration with IITH is inviting research papers for presentation at the 2nd Annual International Conference to be held on the theme 'Cities and Internal Migrants' on **December 30-31, 2022** in hybrid model.

For details visit: <https://iimad.org/events/2nd-annual-international-conference-on-internal-migrants-in-the-cities-entangled-lives/>

Microactuators, Microsensors and Micromechanisms (MAMM 2022) on **December 2-4, 2022.**

For details Visit:
<https://www.iith.ac.in/events/2022/12/02/MAMM-2022/>



The 6th Conference on Microactuators, Microsensors, Micromechanisms
IIT Hyderabad, India, 2-4 December 2022, Hybrid (Offline and Online)

Patron: B. S. Murty, Director, IIT Hyderabad
Scientific Advisory Committee: Chair: Nageshwarish, Director, CMTI, Bengaluru; Co-Chair: Lena Zentgraf, TU Ilmenau, Germany

Pre-Conference Symposium: December 1, 2022
Under the patronage of IPTC/MW: TC Micromachines

Conference Chair: Ashok Kumar Pandey, IIT Hyderabad
Conference Co-Chair: Pram Pal, IIT Hyderabad
Organizing Committee

Important Dates:
Abstract and Paper Submission: 1 March 2022
Acceptance Notification: 31 May 2022
Final Paper Submission: 31 July 2022
Final Notification: 31 August 2022
Early Bird Registration: 30 September 2022



InSIS SICE 2022
4th Structural Integrity Conference and Exhibition
Pre-Conference Workshops: 12th – 13th December 2022
Conference: 14th – 16th December 2022

For more details and registration, visit the website: <https://www.iith.ac.in/sice22/>

Abstract submission link: <https://bit.ly/SICE22>
Abstract Template link: <https://iith.ac.in/SICE22>

<ul style="list-style-type: none"> Defense and Aerospace Applications Nuclear Technologies Renewable Energy Advanced Manufacturing Civil and Naval Structures Petro-Chemical & Process Industries Transportation and Railways Integrated Computational Materials Engineering Integrated Vehicle Health Management AI and ML in Structural Integrity 	<ul style="list-style-type: none"> Composite Structures NDE and SHM Novel Sensors for SHM Automated NDE Inspections Reliability and Structural Integrity Experimental Characterization Fracture and Fatigue Creep and High-Temperature Failure Computational Mechanics Damage Mechanics Nano-Mechanics and Nano-Materials 	<ul style="list-style-type: none"> Multi-Physics Modeling High Strain Rate Loading Impact and Blast Thin Films and Coatings Wear and Tribology Structural Joints Additive Manufacturing Structural Optimization Repair and Maintenance Integrity of Weldments 	<ul style="list-style-type: none"> Energy Storage Devices Wind Energy Gas Turbine Components Nuclear Structural Materials Life Management of Nuclear Structures Biological and Bio-Inspired Materials Medical Devices and Implants Integrity of Concrete and Steel Structures Offshore and Marine Structures Oil and Gas Infrastructure Automotive Structures
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Proceedings and selected extended papers will be published in SCOPUS indexed Journals

Important dates: Submission of abstracts: 15th April 2022 & Submission of manuscripts: 15th June 2022

For sponsorship and exhibition stalls, please email us at: sice22ans@mae.iith.ac.in
Organized by: Department of Mechanical and Aerospace Engineering, IIT Hyderabad under the aegis of InSIS Contact us at: sice22@mae.iith.ac.in

4th Structural Integrity Conference and Exhibition on **December 14-16, 2022.**

For details visit:
<https://www.iith.ac.in/events/2022/12/14/4th-Structural-Integrity-Conference-and-Exhibition/>

IIT Hyderabad invites applications for Special Recruitment Drive for faculty positions in various departments.

Last Date: Nov 05, 2022, 5:30 PM

For details Visit:
<https://faculty.recruitment.iith.ac.in/>



Indian Institute of Technology Hyderabad
Advertisement No. Special Recruitment Drive-02-2022 for SC/ST/OBC-NCL/EWS for faculty positions

Starting date of applications: 15.10.2022
Closing date of applications: 05.11.2022 05:30 pm

1. General Information:

The Indian Institute of Technology Hyderabad (IITH) was established in 2008 by the Government of India under the Institutes of Technology Act, 1951 as amended from time to time. IITH has been consistently ranking within top 10 of the engineering institutes in the country, and also ranking first among IITs established in 2008 or later.

IITH is actively engaged in teaching, research and development and is seeking faculty for its various academic departments. Through this Advt., IITH invites applications from Indian nationals belonging to the SC/ST/OBC-NCL/EWS category, possessing consistently good academic record throughout, commitment to top quality teaching and proven credentials for carrying out outstanding research and development for its various departments, as given below:

Academic Staff



Prof Amit Acharyya

Professor
Department of Electrical Engineering

Prior to joining this, Amit worked in the Department of Electrical Engineering, IITH as an Assistant Professor between 2012- 2017 and Associate Professor between 2017 - 2022. His research interest is in the fields of VLSI Systems design for Signal Processing and AI.

My Experience at IITH:

It is my eleventh year at IITH. I am proud to witness the transition from Old to New campus, Shed to posh building & massive improvement in the infrastructure. Also the uniqueness of IITH is the coordination between faculty & staff that has been reflected in form of our wonderful performance in various Ranking Framework. I wish all the faculty, staff & student all the best. Happy to be part of the journey of this tremendous institute over past one decade.

Prof Bhabani Shankar Mallik obtained his Ph.D. degree from IIT Kanpur. He was a postdoctoral fellow at the University of Minnesota, Minneapolis and the University of Notre Dame, USA. He is working as a professor in the Department of Chemistry. He joined IITH as an assistant professor in 2011, and since then, he has been associated with and contributed to the institute's growth. His research interests are computational electrochemistry, catalysis, spectroscopy, and diffusion dynamics in electrolytes and electrodes using first principles and molecular dynamics methods. More about his research can be found here: <https://people.iith.ac.in/bhabani/>

My Experience at IITH:

I feel proud to join and associate with IITH. I thank IITH for nurturing and fulfilling my dreams and aspirations.



Prof Bhabani Shankar Mallik

Professor
Department of Chemistry



Prof Chandrashekhar Sharma

Professor
Department of Chemical Engineering

Prof Chandra Shekhar Sharma has joined IITH in 2011 as an Assistant Professor immediately after completing his PhD from IIT Kanpur. Prof Chandra did his BTech from Zakir Hussain College of Engineering, Aligarh Muslim University, Aligarh in 2003. Among the several recognitions to his credit, he has also been a recipient of one of the most prestigious DST Swarna Jayanti Fellowship in Engineering Sciences in 2020. His research interests are in the fields of polymer and carbon nanomaterials, and electrospun nanofibers for energy, environmental, sensor, and healthcare applications. In his free time, he likes cricket, social work, and traveling.

My Experience at IITH:

My association with IITH is now more than a decade. The journey has been truly incredible from its beginning. We have come a long way within a span of just fourteen years. The passion and courage to try new things in Academia, striving hard for Research excellence, the openness to sharing knowledge, and a positive learning environment make IIT Hyderabad a unique Institute. However, when I look back, I still feel that given the potential we had, we could have done even better by pushing ourselves even more.

Giridhar Madras is a Professor in the Department of Chemical Engineering, IIT Hyderabad. He obtained his degrees from IIT Madras and Texas A&M University. He worked at the University of California, Davis, and the Indian Institute of Science prior to joining IITH. He has graduated over 100 students including 50 PhD students, published more than 600 journal articles, and has won several awards including the S S Bhatnagar prize. His research interests are in the field of the development of novel materials for energy and environmental applications.

My Experience at IITH:

It feels great to be part of a fast-growing highly reputed institution. I have found warm and welcoming colleagues and I wish to contribute to the growth of the institution.



Prof Giridhar Madras

Professor
Department of Chemical Engineering



Prof Narendra Sahu

Professor
Department of Physics

Dr. Narendra Sahu is currently holding a professor position in the department of Physics at IIT Hyderabad. Before joining as a professor at IITH, he also served as an associate professor at IITH during 23rd February 2017 to 17th July 2022 and as an assistant professor at IITH during 4th October 2011 to 22nd February 2017. Prior to 2011, he was a postdoctoral fellow at Lancaster University, UK, University Libre du Brussels, Belgium, and Physical Research Laboratory Ahmedabad, India.

My Experience at IITH:

When I joined IITH, at that time, it was running on a small campus at the ordnance factory, Yeddumailaram, and there were about 100 faculties. All of us could meet quite often during tea time. Despite negligible infrastructure, faculties were working hard and enjoying. Over the years, IITH has grown up to a young stage and earned a lot of reputation. Thanks to the hard work of faculties and staffs, we created a space for ourselves at the international level. It was a nice experience to be a part of the growth of IITH from the very beginning of its inception.

Prior to this, he was an Associate Professor at IITH. Siva earned his MS from University of Notre Dame, USA, and PhD from Indian Institute of Science Bangalore. His research interests are in the fields of Biosensors, MEMS and 3D IC.

My Experience at IITH:

It been just more than decade of experience at IITH and it is truly a journey where each and every moment is a cherished moment. The passion and the energy of IITH let us overcome all the hurdles. There is a deep sense of satisfaction I was a small part in the process of building the institute almost from the scratch all the way to the force to the reckon with Indian Academia. I thank all the colleagues across the departments for making the life @ IITH enjoyable. Looking forward to contributing to the best of my ability.



Prof Siva Rama Krishna Vanjari

Professor
Department of Electrical Engineering

Prior to joining IITH in 2013, Prof Subha Narayan Rath was a Postdoctoral fellow at the Department of Plastic Surgery, University Hospital of Erlangen-Nuremberg, Germany. He has done his PhD at the Division of Bioengineering, National University of Singapore, Singapore. He has done his MMST from IIT Kharagpur and MBBS from MKCG Medical College, Berhampur, Odisha. His research interests are in devices for diabetes, 3D printed microfluidic devices, and 3D Bioprinting for cartilage, blood vessels, and bone. In his free time, he likes basketball, walking in nature, intelligent discussions on any topics, and traveling, not in that order.

My Experience at IITH:

I found the IITH atmosphere lively with young innovative minds and a pleasant learning and teaching atmosphere. As I am from a non-engineering background, I see engineering applications in the medical field every day. I keep my inquisitive mind sharp with everyday learning because of this student mindset of mine and the vibrant IITH atmosphere. It's a great experience for me to see IITH grow from the ODF campus days to now the full-fledged world-class high skyscrapers on this campus. I feel IITH's growth will bring a first-of-its-kind institution to world-class institutions in India and show a next-generation research institution in the coming future.



Prof Subha Narayan Rath

Professor
Department of Biomedical Engineering

Prof Sushmee obtained her MS and PhD in Electrical Engineering from University of California, Riverside, USA. Her research interests include Flexible Nanoelectronics, electrochemical sensors and supercapacitors. She established the Flexible Electronics and Nano Devices (FEND) lab at IITH.

My Experience at IITH:

IITH is a great place to work.



Prof Sushmee Badhulika

Professor
Department of Electrical Engineering



Prof Venkatasubbaiah K

Professor
Department of
Mechanical and
Aerospace Engineering

Prof K Venkata Subbaiah has been with IIT Hyderabad since December 2009. Prior to joining IIT Hyderabad, he worked as a faculty in Amrita School of Engineering, Coimbatore. He completed his PhD at IIT Kanpur. His research interests are in the field of CFD, Heat Transfer, Supersonic and Hypersonic Flows.

My Experience at IITHu

I have been at IIT Hyderabad since 2009, and it gives me immense pleasure working for IIT Hyderabad. I feel fortunate to be a part of this wonderful institute from its early years. IIT Hyderabad administration and colleagues are always supportive to do research in the field of my interest. I feel very happy to say that IIT Hyderabad has been doing so well in various research and teaching aspects compared to other institutions. I am fortunate and happy to be a part of this great Institution.

Dr B Venkatesham has been with IIT Hyderabad since 2010. Prior to joining IIT Hyderabad, he worked as a Lead Engineer for around 10 years at the General Electric Global Research Centre, Bangalore. Prof Venkatesham did his BE from Andhra University, Vizag and obtained his ME and PhD degrees from IISc Bangalore. His research interests are in the fields of Engineering Acoustics, Sound Quality, and System Engineering.

My Experience at IITH:

I consider myself fortunate to have witnessed the transformation of IITH from a school building to one of the best technical institutes in India. I am grateful to the students who helped me continue to learn and to my colleagues who always manage to brighten my day.



Prof Venkatesham Balide

Professor
Department of Mechanical
and Aerospace Engineering



Dr Alok Kumar Pan

Associate Professor
Department of Physics

Dr Alok Kumar Pan has been appointed as an Associate Professor in the Department of Physics, IIT Hyderabad. Prior to joining IITH, Alok was an Assistant Professor in NIT Patna since 2014. Before working at NIT Patna, he was a JSPS postdoctoral fellow at Nagoya University Japan, a CNRS Postdoctoral Fellow at the University of Cergy-Paris, France. He did his M.Sc. from Jadavpur University, Kolkata, and obtained his Ph.D. degree from Bose Institute, Kolkata. He was also the recipient of the Ramanujan Fellowship. His research interests are in the fields of Quantum information theory, Quantum communication, Quantum foundations, Quantum cryptography and Quantum Metrology.

My Experience at IITH:

It indeed feels fantastic to be a part of this dynamic Institute. I deeply appreciate the warm welcome I have received from everyone from the Department of Physics and from the administration. From my one month's experience with IITH, I strongly feel everyone heartily wants to contribute to the development of this Institute. I'm enthusiastically looking forward to a great association with IITH.

Before joining IIT Hyderabad, Dr Anil Agarwal worked as an R&D Engineer at Bentley Systems, Inc., USA. He received his PhD from Purdue University, USA, and his MTech and BTech degrees from IIT Kanpur. He specializes in the areas of structural fire engineering, structural applications of FRP composites, and steel-concrete composites.

My Experience at IITH:

I Joined IIT Hyderabad in 2014. In spite of various challenges faced by the IITH fraternity in the initial years, there was a sense of belongingness and purpose. As a result, IIT Hyderabad started ranking high in most of the performance matrices from the early days. Now the institute has most of its infrastructure in place. This is the ideal time to expand our reach and grow in quality and size to become an institute of international repute. I am fortunate to be a part of its growth story.



Dr Anil Agarwal

Associate Professor
Department of Civil Engineering



Dr Digvijay S Pawar

Associate Professor
Department of Civil
Engineering

Prior to joining IITH in 2016, Dr Digvijay was a senior research associate in IIT Bombay from 2015. He received his Masters and Doctoral Degrees in Transportation Systems Engineering from IIT Bombay in 2015. His research predominantly focuses on traffic operations and safety, human factors and highway geometric design with emphasis on Intelligent Transportation Systems (ITS) and Naturalistic Driving Studies (NDS).

My Experience at IITH:

I joined IIT Hyderabad in 2016. Being a part of an institute of eminence, I believe it is my prime responsibility to contribute to the institute, country and society in any way I can. The institute provides all help and support to everyone to develop and grow. It's an honour to be a part and grow with this dynamic institute.

Dr Naresh Emani has been appointed as an Associate Professor in the Department of Electrical Engineering at IIT Hyderabad. Prior to this Dr Naresh was an assistant professor in EE@IITH. His research interests are in the fields of Nano and Quantum Photonics, Semiconductor Optoelectronics and Photovoltaics.

My Experience at IITH:

I joined IITH in June 2017. I could immediately feel the tremendous zeal and energy within the IITH community to build a great institution. There was a sense that everyone was playing a small part in a bigger vision. Even though there was no particular emphasis on metrics we managed to rank among the top 10 institutions in the NIRF ranking. I am sure IITH will be able to achieve even greater heights if we all work together and make decisions with the long-term interests of IITH at heart rather than short-term laurels/benefits. I look forward to contributing my best towards this goal.



Dr Emani Naresh Kumar

Associate Professor
Department of Electrical
Engineering



Dr Jai Prakash

Associate Professor
Department of Chemistry

Dr Jai Prakash obtained his PhD in Chemistry in 2011 from IIT Delhi after completing his MSc in Chemistry from IIT Roorkee in 2006. He joined IIT Hyderabad in July 2006 as an Assistant Professor. Before joining IITH, Dr Prakash worked as a postdoctoral fellow for about five years at the University of Delaware, Northwestern University, and Michigan State University in the USA. Recently, he has been promoted to the Associate Professor position at IITH. His research interests are in the fields of superconductivity and thermoelectric materials.

My Experience at IITHu

I had joined IIT Hyderabad in July 2016. My experience at IIT Hyderabad has been wonderful in the last six years. IITH is one of the best institutes in India, and I feel proud to be associated with it. The research and teaching facilities at IITH are of top class. The IITH administration extends its full support to all members of the IITH community to have a positive working environment on campus. The institute emphasizes innovation and creativity and encourages all faculty to reach new heights in their career. With recent construction activities, the campus is coming along very nicely and slowly turning into a greener campus than it was back in 2016. I am confident that our institute will grow exponentially to become a top institute globally in the coming years.



Dr Prakash Chandra Mondal

Associate Professor
Department of Liberal Arts

Dr Prakash Mondal joined IITH as Assistant Professor in 2015 immediately after obtaining his PhD (with distinction) in Mathematical Linguistics and Cognitive Science from the Indian Institute of Technology Delhi. He completed his Masters in Linguistics and Phonetics from the English and Foreign Languages University, Hyderabad in 2008. His research interests are in the areas of formal/mathematical linguistics, linguistic theory, theoretical computational linguistics, biolinguistics, biosemiotics, philosophy of language and mind, natural language semantics, and cognitive science.

My Experience at IITH:

It has been a matter of great joy to have taught students, guided PhD scholars, engaged in formal and informal discussions with colleagues of all stripes, learnt a lot about every aspect of what I wish to do intellectually and otherwise for more than 7 years now. There have been ups and downs, as is typical in every slice of life, but what I do here partly defines what I'm and what I'm partly contributes to what the institute does. That feeling keeps me going.

Dr Prasad Onkar completed his PhD in Computer-Aided Conceptual Design from the Center for Product Design and Manufacturing (CPDM), IISc Bangalore. He holds a Master of Technology degree in Product Design and Manufacturing from Visvesvaraya Technological University, Belgaum, Karnataka, and a Bachelor of Engineering (BE) Degree in Mechanical Engineering from Karnatak University, Dharwad, Karnataka. Before joining IITH, he was an Assistant Professor at the Department of Design at IIT Guwahati. He was also a Visiting Researcher at the Virtual Prototyping Lab in the Department of Mechanical Engineering at Politecnico di Milano, Milan, Italy. He is also the convener of Unnat Bharat Abhiyan (UBA) and a member of the Rural Development Center of the Institute.

My Experience at IITH:

It has been a great experience being part of the IITH community. Being the first faculty to join the department, I have experienced memorable moments that will be cherished for a long time. From the early days of the ODF campus to the present, the faculty, staff, and students have made these experiences memorable.



Dr Prasad S Onkar

Associate Professor
Department of Design



Dr Pradipto Banerjee

Associate Professor
Department of Mathematics

Prior to joining IITH in 2014, Pradipto was a visitor in TIFR Mumbai. Before that, he was a Visiting Scientist at ISI Kolkata, Stat-Math Unit, and a Post-doctoral Fellow at IMSC Chennai. Pradipto did his B.Sc (Maths. Hons.) from Presidency College, Kolkata, obtained his M.Sc (Mathematics) degree from CMI, Chennai and Ph.D. (Mathematics) degree from University of South Carolina, Columbia, SC, USA. His research interests are in the fields of Algebraic, Analytic and Combinatorial Number Theory.

My Experience at IITH:

IIT Hyderabad provides a very conducive ambience for an active scientist to grow in all aspects. Thanks to the initiatives of our past and the present directors, we have been able to attract quality researchers and dedicated teachers from across the world. It is needless to say that being located adjacent to the next biggest happening metropolis has its own advantages. Overall, I find IIT Hyderabad to be one of the most lucrative destinations for research professionals and students alike.



Dr Satish Kumar Regonda

Associate Professor
Department of Civil
Engineering

"After bachelors from KITS Warangal and masters at the IIT Kanpur, Satish Regonda pursued his PhD at the University of Colorado at Boulder. Later, he worked with a group of scientists at the National Weather Service (NWS), NOAA, Washington DC. Then, he had a short stint with the World Bank and Johns Hopkins university before joining the Civil Engineering department at the IIT Hyderabad in Feb 2017. Satish's research interests are Hydrology, Climate and Statistics. Currently, he is working on developing information systems to forecast rainfall and flood/runoff for cities and river basins. The city of Hyderabad and Godavari- , Krishna- and Narmada- River basins are his research studies. Satish is interested in bridging a gap among scientists, engineers and decision makers so that advances in research can be utilized fully, and he explores beyond a conventional range which includes drones, machine learning techniques and developing web-based products. "

My Experience at IITH:

Happy to be here with nice and supporting colleagues and staff - their affection and helping nature made my journey including climate change headship easier. I still remember the days when faculty from various departments (unknown to me) offered help in conducting the interview for the Dept. Climate Change when it started, and later offered a lot of new courses enthusiastically. A lot of energy and open for discussions - much needed for me and for the new program. I asked for the help and they were there. My sincere thanks to all and my supportive students. Besides, green campus to go for walks, less noisy electrical vehicles to introduce birdy language, beautiful buildings to create city magic in a remote place, students' presence to make you feel that you are nowhere close to old and the new incoming staff to keep you on the younger side - one may say that mobilizing innovatively on the clouds over the TIHAN, but that's the life at IITH

Dr Somnath Maji, Associate Professor in the Department of Chemistry, IIT Hyderabad. Previously, he was an Assistant Professor at IITH. He obtained his BSc and MSc degrees from the University of Burdwan and earned his PhD from IIT Bombay. Before joining IITH, he was a postdoctoral fellow at Uppsala University, Sweden, and ICIQ, Spain. His research interests are Synthetic Coordination/Bio-Inorganic/Organometallic Chemistry/Bioinspired Catalysts for solar fuel production.

My Experience at IITH:

It is my privilege to be a part of IIT Hyderabad, along with great intellectuals and researchers all around. The ambiance of this institution has been a motivation and support towards my research career as well as an educator. I feel proud to consider myself among the forerunners to witness all the developments of IITH from early ODF days to a newly furnished high-class institute building. The healthy research atmosphere and my fantastic colleagues have helped me grow as a researcher, and I look forward to contributing positively to the development of the institute. Now a truly vibrant campus with cultural and academic diversity, I feel lucky to be part of the Department of Chemistry at IIT Hyderabad.



Dr Somnath Maji

Associate Professor
Department of Chemistry



Dr Srijith P K

Associate Professor
Department of Computer
Science and Engineering

Dr Srijith joined IIT Hyderabad as an Assistant Professor in the Department of Computer Science and Engineering in 2016. Before joining at IIT Hyderabad, he was a postdoctoral fellow at the Department of Computer Science, University of Sheffield and at the Computing and Information Systems, University of Melbourne. Srijith did his Ph.D. from Indian Institute of Science, Bangalore and obtained his M.Tech. and B.Tech. degrees from IIT Bombay and NIT Calicut respectively. His research interests are in the fields of Machine Learning, Deep Learning, Bayesian Learning, and Continual Learning with applications to Computer Vision, and Natural Language Processing.

My Experience at IITHu

I am thankful to IIT Hyderabad for offering very good teaching and research facilities. IITH provided me with a lot of opportunities and challenges which transformed me from a researcher to an academician. I am grateful to be in an environment with several supportive colleagues and students, which helped me to advance ahead in research, teaching and administration. I will be happy to continue my efforts to make IITH the best institute for learning and research.



Dr Tanmoy Paul

Associate Professor
Department of Chemistry

Dr Tanmoy Paul received his Master's degree from Calcutta University, Department of Mathematics. He completed his PhD at the Indian Statistical Institute, Kolkata. His area of research is functional analysis, more precisely on the geometry of Banach spaces. He did his post-doctoral study at the Indian Statistical Institute, Bangalore Centre. His current research work is related to the study of various types of approximations in infinite-dimensional normed vector spaces and also how these notions of approximations determine the geometric behavior of the normed spaces.

My Experience at IITH:

Availability of dynamic group of faculties in all the departments. A friendly environment between faculties and students. Undergraduate students are enthusiastic to learn more apart from their regular course material.

Dr Upadrasta Ramakrishna received his Masters degree from IISc Bangalore, India and MS from Colorado State University, USA. He obtained his PhD at University of Paris-Sud and INRIA, Paris, France. He worked as a Research Engineer at INRIA, Paris and as Research Scholar at Lawrence Livermore National Laboratories, USA. He has been working as an Assistant Professor at IITH since 2014.

My Experience at IITH:

IITH has a research environment that inculcates excellent research in established areas, as well as openness to experiment in new and upcoming research areas. It has fantastic faculty who come from reputed institutions and have already made their name in various domains. It has a hardworking administration and supporting staff who are responsive to various steady and urgent requirements of the faculty. Most importantly, it has excellent students at various levels: Undergrad, MTech, and Doctoral levels, who make the mentoring, teaching, research, and advising here enjoyable and rewarding. Though IITH is a second-generation IIT, it has already made its name in the world because of these, and many more reasons. My interaction with everyone: whether in the CSE department (my main department), through the IKS cell (which I have been in charge of), or the new HST department has been simply excellent. I consider myself to be fortunate to have been associated with IITH since 2014.



Dr Upadrasta Ramakrishna

Associate Professor
Department of Computer Science and Engineering



Dr Anirban Naskar

Assistant Professor
Department of Mechanical and Aerospace Engineering

Dr Anirban Naskar pursued his BE in Production Engineering from Jadavpur University. He obtained an MTech and PhD degree from the Department of Mechanical Engineering at the Indian Institute of Technology Kharagpur. After completing his PhD, he joined the Department of Mechanical Engineering, Indian Institute of Technology Bombay, as an Institute Post-doctoral Fellow. Dr Naskar's current research interest includes Online monitoring of surface integrity in machining, Numerical modeling of residual stress in hybrid manufacturing (additive + subtractive manufacturing), Non-destructive techniques in surface integrity evaluation, and Abrasive finishing of free-form surfaces for biomedical and aerospace application.

My Experience at IITH:

So far, I have experienced IIT Hyderabad's community being very cooperative, providing me with an extremely smooth onboarding. I received a warm welcome from the Department and Institute. I have found it a well-planned and organized campus. The buses frequently run, which was very helpful for me in the initial days. I feel very fortunate to join such a vibrant educational and research institute. I hope to have an exciting journey ahead here at IIT Hyderabad.



Dr Chandra Prakash

Assistant Professor
Department of Mechanical
and Aerospace Engineering

Dr Chandra Prakash is an Assistant Professor in the Department of Mechanical and Aerospace Engineering at IIT Hyderabad. Prior to joining IITH in 2022, Chandra was a Postdoctoral Fellow at Johns Hopkins University since 2019. Before working at Hopkins, he was a postdoctoral fellow at Purdue University, USA. Chandra obtained his PhD from Purdue University, his MTech from IIT Kanpur, and his BTech from NIT Raipur. His research focuses on the design and development of high-performance, multifunctional structures and materials through an integrated framework combining multiscale experimental mechanics and computational modeling.

My Experience at IITH:

My experience at IITH and the MAE department has been pleasant so far. My colleagues have been very welcoming and supportive. I also want to mention both the institute and departmental administrative support that helped smooth onboarding here. I look forward to contributing to the growth of the institute.

Before joining IITH, Deepak was a postdoctoral fellow and later a visiting scientist at the Indian Statistical Institute, Bangalore Centre. He obtained his PhD in mathematics from IIT Kanpur. He works in pure mathematics, in particular, in operator theory.

My Experience at IITH:

Both academic and administrative colleagues have been very kind and welcoming. From my limited interaction so far, I found that everyone associated with the institute has a deep love and belongingness to the institute. I am delighted to be part of IIT Hyderabad. The departments here have very high academic standards. I wish to contribute to my department and the institute through good research and teaching.



Dr Deepak Kumar Pradhan

Assistant Professor
Department of Biomedical
Engineering



Dr Gaurav Sharma

Assistant Professor
Department of
Biotechnology

Before joining IITH in Sep 2022, Dr Gaurav Sharma was a DST-INSPIRE Faculty at the Institute of Bioinformatics and Applied Biotechnology (IBAB), Bengaluru, from Aug 2019. Earlier, he was a postdoctoral fellow at the Department of Microbiology and Molecular Genetics, the University of California, Davis, USA, during 2016-2019. Gaurav did his BSc from DAV College, Muzaffarnagar, Uttar Pradesh (2006-09), obtained his MSc (Biotechnology) from the School of Biotechnology, Jawaharlal Nehru University, New Delhi (2009-11), and worked at CSIR-Institute of Microbial Technology (IMTECH), Chandigarh during his PhD (2011-16). He is also the Editor for two prestigious international journals; Microbiology Spectrum (American Society for Microbiology) and Genomics (Elsevier). He has been recently awarded "AMI Young Scientist Award-2021 (Environmental Microbiology)" by the Association of Microbiologists of India. His research interests include microbial genomics, metagenomics, and medicinal plant-microbe interactions using computational biology.

My Experience at IITH:

Although it has been only 15 days since joining, my experience has been fantastic. I have witnessed a congenial and healthy environment at the department and institute levels. The departmental colleagues and other faculty with whom I have the pleasure to meet/interact have been very welcoming and cooperative. I am positive that IITH, being a dynamic and diverse institute, will provide outstanding opportunities for a young faculty like me to learn, explore, and grow professionally and personally. I feel thrilled to work in such a vibrant atmosphere at IITH-BT, and I look forward to contributing and growing with it.



Dr Jagtap Piyush Vijay

Assistant Professor
Department of Materials
Science and Metallurgical
Engineering

Dr Piyush Jagtap received his Bachelor's degree in Metallurgy and Materials Science from Visvesvaraya National Institute of Technology (VNIT), Nagpur. After his Bachelor's, he joined the Indian Institute of Science, Bangalore for an integrated PhD program where he worked on spontaneous whisker formation from thin films and coatings. Following his PhD he received Fulbright-Nehru Postdoctoral Fellowship to pursue postdoctoral work at Brown University, the USA where he worked from 2018-2020. After his postdoc at Brown University, he worked at Aix-Marseille University as a CNRS postdoctoral fellow. He quit his job to join the Indian Institute of Technology, Hyderabad in July 2022. His research work is mainly experimental and is focused on thin films and coatings for a wide range of engineering applications such as microelectronics/semiconductor devices to structural applications. His research interests are stress engineering in thin films/coatings, microelectronics packaging and interconnect, Pb-free solders, mechanical behavior of nanostructures, and micromechanical testing.

My Experience at IITHu

I joined IITH in July 2022 and so far, my experience is positive. I am fortunate to have great, young, and dynamic colleagues both at the departmental and Institute level. I am glad to be a part of such a fast-evolving institute and look forward to contributing to its growth.

Dr Jayshree Patnaik obtained her PhD from Rajendra Mishra School of Engineering Entrepreneurship, Indian Institute of Technology, Kharagpur in 2022. Prior to joining IIT Hyderabad in September 2022, Dr Jayshree was working as an Assistant Professor at Jindal Global Business School, OP Jindal Global University. Her research interest is in the field of Design Thinking, Frugal Innovation, Innovation, and Social Entrepreneurship.

My Experience at IITH:

It has been a wonderful experience to join the dynamic and vibrant community of IITH. I was given a warm welcome by the faculties of the EM Department, the Administration office, and faculties from a different department. The community of IITH is really helpful. I am glad to be a part of this young and emerging institute, and I look forward to a great academic journey at IITH.



Dr Jayshree Patnaik

Assistant Professor
Department of
Entrepreneurship and
Management



Dr M Rajesh Kannan

Assistant Professor
Department of Mathematics

Prior to joining IITH in 2022, Dr Rajesh Kannan was an Assistant Professor at IIT Kharagpur from 2016. Before working at IIT Kharagpur, he was a postdoctoral fellow at ISI Delhi, The Technion-Israel Institute of Technology Haifa, Israel, and the University of Manitoba, Winnipeg, Canada. Rajesh Kannan did his BSc and MSc from ANJA College, Sivakasi, and obtained his PhD degree from IIT Madras in 2014. His research interests are in the fields of Combinatorics, Spectral graph theory, Matrix theory, and Functional Analysis.

My Experience at IITH:

I recently joined the Department of Mathematics, IITH, and having a good time in the institute. Both the department and institute are vibrant and supportive of the young faculties. I like the classrooms in the institute a lot; in particular, the green boards are fantastic to teach.

Dr Meenakshi obtained her bachelor's degree in Civil Engineering from the National Institute of Technology Kurukshetra. She earned her PhD and master's degrees from the Indian Institute of Technology, Delhi, India. She worked as a postdoctoral researcher in the Laboratory of Construction Materials at Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Her research interests include experimental and analytical studies of cementitious materials, concrete mechanics, sustainable cementitious binders, and durability and repair of concrete structures.

My Experience at IITH:

My experience at IITH has been fantastic because of the welcoming and friendly atmosphere in both the department and the institute. The people at IITH are warm and welcoming, the administration is helpful, and the colleagues in the department are supportive. This provides a comfortable atmosphere and a number of opportunities for a young faculty to grow both professionally and personally. It feels great to be a part of such a young and fast-growing IIT.



Dr Meenakshi

Assistant Professor
Department of Civil
Engineering



**Dr Priyadarshi
Chakraborty**

**Assistant Professor
Department of Chemistry**

Before joining IITH in 2022, Priyadarshi was a postdoctoral fellow at Harvard Medical School, USA (September 2021-August 2022). Prior to that, he did his postdoctoral research at Tel Aviv University, Israel (October 2016-September 2021). He obtained his PhD degree from the Indian Association for the Cultivation of Science (IACS), Kolkata. Priyadarshi did his MSc and BSc degrees in Chemistry from the University of Burdwan. His research interests are in the fields of conductive polymers, tissue engineering, peptide self-assembly, rheology, and drug delivery.

My Experience at IITH:

I have recently joined IITH as an assistant professor in the Department of Chemistry. Since joining, my experience at IITH has been excellent. During the time of my joining all the people in the Dean faculty office were very cooperative. The faculties at the Department of Chemistry are very helpful, welcoming, and considerate. I had the opportunity to meet Prof Murty, the director of IITH and we had an interesting discussion about the institute's goals. Overall, the weather is fantastic, the ambiance is splendid, and the people are great. I feel privileged to be a part of IITH and I am looking forward to an excellent academic career.

Before joining IIT Hyderabad, Dr Rajesh was an Assistant Professor in the Department of Management Studies, at NIT Trichy since 2020. He holds a PhD from the University of Hyderabad in the area of Customer Experience Management. He is also an awardee of the Junior Research Fellowship (JRF) from the University Grants Commission of India. His research interest includes Customer Experience Management, Consumer Behavior, Travel, Tourism, and Market Research.

My Experience at IITH:

I recently joined as an Assistant Professor in the Department of Entrepreneurship and Management. Glad to be part of a fast-growing and reputed institution like IITH. I have found a welcoming and warm colleague, helpful administration, and driven students. I look forward to contributing to the institute's growth and enriching my career at IITH.



Dr Rajesh Ittamalla

**Assistant Professor
Department of
Entrepreneurship and
Management**



Dr Ranapratap Maradana

**Assistant Professor
Department of
Entrepreneurship and
Management**

Dr RanaPratap obtained a Master's from the Department of Commerce and Management Studies, Andhra University, and a PhD from the Indian Institute of Technology, Kharagpur, India, in 2017. Before joining IITH in 2022, Rana Pratap was associated with IBS Hyderabad and Thiagarajar School of Management, Madurai, at the Assistant Professor level. His research interests are in the fields of Venture Capital Investments, Energy Finance, and Financial Markets. He teaches subjects like Corporate Finance, Engineering Finance, and Security Analysis, etc.

My Experience at IITH:

I have recently joined the Department of Entrepreneurship and Management, IITH. I am delighted to be part of India's fastest-growing and most vibrant institute. My colleagues at the department level and institution levels are very interactive and supportive. I look forward to contributing more to research and teaching in academia.



Dr Saranya Samik Ghosh

Assistant Professor
Department of Physics

Before joining IITH in 2022, Saranya was a Senior Research Fellow at CERN, Switzerland, from 2021. Before working at CERN, he was a postdoctoral researcher at RWTH Aachen University, Germany, and CEA Paris-Saclay, France. Saranya did his BSc from St Xavier's College, Mumbai, and obtained his MSc and PhD degrees from TIFR, Mumbai. His research interests lie in the field of experimental high-energy physics, particularly on topics such as Higgs physics and the search for new physics beyond the Standard Model of particle physics. Saranya is an active member of the Compact Muon Solenoid (CMS) experimental collaboration based at the CERN Large Hadron Collider (LHC); he has been pursuing his research goals along with working on particle detector development through his work on the CMS experiment.

My Experience at IITH:

It feels very exciting to become a part of a reputed young institution that is IITH. I have had a great time here since joining; the colleagues at the Department of Physics and the institute, in general, have been very helpful and supportive. I had an opportunity to interact with Prof Murty and to learn from him about the institute, which was enlightening. I have started to take courses, and my interactions with the bright young students at the institute have been quite enjoyable. I look forward to building on my research activities at the institute and growing while contributing to the research and educational goals of IITH.

Dr Saurav Khuttiya Deori has been appointed as an Assistant Professor in the Department of Design, IIT Hyderabad. Before joining IITH in 2022, he pursued his PhD and MDes from the Indian Institute of Guwahati, Assam, with an interest in Visual Communication Design. For his PhD work, Dr Deori was the recipient of the 'Best Thesis Award' (2021-2022) of the Department of Design, IITG. He was also associated with a thematic project under the Design Innovation Center (DIC), IIT Guwahati- funded by the Ministry of Education (MoE), Govt. Of India. The project aims at developing various promotional tools for the uplifting of the tourism industry of Assam. He has worked on multiple branding, print, and publishing projects for IIT Guwahati, Directorate of cultural affairs, Govt. of Assam, and Govt. of Bodoland Territorial Council, India. Apart from it, he has been associated with multiple start-ups as a brand consultant and graphic designer. His interests are in the field of visual ethnography research, Heritage preservation, Branding-identity designs, and print publications.



Dr Saurav Khuttiya Deori

Assistant Professor
Department of Design

My Experience at IITH:

It is my honor to be part of the IIT Hyderabad fraternity. I would like to thank the IITH Administration and my department for making the joining process smooth and noteworthy. My interaction with HoD and the department has been pleasant, as they have been upfront for any queries and support. Apart from Academia, I am enjoying and exploring the pleasant weather, local cuisines, and the locality of IIT Hyderabad. I am delighted to be part of the IITH family, and I look forward to contributing to the growth of the institute and the nation.

Non- Academic Staff



Mr Gajula Ashok

Deputy Registrar
Research & Development
Section

Mr Gajula Ashok has done his master's in Commerce (MCom) from Osmania University Campus College of Commerce and Business Management (OUCCBM) Hyderabad. Besides, he did Cost and Management Accounting (ICWAI-Inter) and also qualified in UGC-NET in Commerce. He joined Indian Audit and Accounts Department (IAAD) in 2002 and worked in various offices of IAAD (O/o the Principal AG Bangalore, Principal Director of Commercial Audit & Ex-Officio Member, Audit Board Bangalore & Hyderabad) as Section Officer & Assistant Audit Officer and audited several State & Central PSUs. Later on, he joined Indira Gandhi National Open University (IGNOU) New Delhi in 2010 as Assistant Registrar and worked in the Regional Offices of IGNOU at Kochi, Panaji, Hyderabad, and Chennai. He has over 20 years of experience in dealing with Finance, Accounts, and Audit matters.

My Experience at IITH:

Indeed it is a great pride for me to join and work at IIT Hyderabad, one of the premier technology and research institution in the country, growing at a faster phase and competing with first-generation IITs in all around. The work atmosphere is very good and conducive to contributing the best to the given assignment.



Prof C Krishna Mohan
Department of Computer Science & Engineering

Selected as co-opted member of the SERB-PAC committee in Biomedical and Health Science(BHS)



Dr Sudarsanam Putla
Assistant Professor, Department of Chemistry

An Early Career Board Member of the Molecular Catalysis Journal, Elsevier



Dr Aravind Kumar Rengan
Associate Professor, Department of Biomedical Engineering

Selected as co-opted member of the SERB-PAC committee in Biomedical and Health Science(BHS)



Dr Mayur Vaidya
Assistant Professor, Department of Materials Science and Metallurgical Engineering

Appointed as the occupant of the TiHAN Chair in Autonomous Navigations at IIT Hyderabad



Mr Gopabandhu Panigrahi
Research Scholar, Department of Chemistry

Received the best poster award at the International Conference on "Ultrasonics and Material Science for Advanced Technology (ICUMSAT-2022)"



Dr Nagarajan Ganapathy
Assistant Professor, Department of Biomedical Engineering

Awarded an international grant by the British Academy, UK



Ms Swati
Research Scholar, Department of Chemistry

Received Dr M Pancholy Memorial Award - 2022 at the International Conference on "Ultrasonics and Material Science for Advanced Technology (ICUMSAT-2022)"



Dr Dinesh Singh
PhD (2019), Department of Computer Science & Engineering

Appointed as an Assistant Professor in the School of Computing & Electrical Engineering at the Indian Institute of Technology Mandi



Dr Arabinda Haldar
Associate Professor, Department of Physics

Selected as an editorial board member of 'Materials Today Electronics' - a sister journal of "Materials Today".



Dr Parikshit Sahatiya
PhD (2018), Department of Electrical Engineering

Appointed as an Editorial Board member for Materials Today (Electronics and also Nature Scientific Reports)



Dr Arghya Pal
PhD (2020), Department of Computer Science & Engineering

Interviewed by Nasscom India, in the context of "Current trends and Future Directories of AI, Machine Learning, and Deep Learning", as a part of IndiaAI series



Dr Mamidi Suresh
PhD (2020), Department of Chemical Engineering

Appointed as an Assistant Professor in the Department of Chemical Engineering at NIT Agartala



Dr Ravi Gujjula
PhD (2014), Department of Chemical Engineering
 Appointed in the new role as Director, Andhra Pradesh Information Technology Academy, Department of Electronics and Communication & IT, Government of Andhra Pradesh



Prof Pinaki Prasad Bhattacharjee
Material Science & Metallurgical Engineering Department
 Received the ASM-IIM Visiting Lectureship Award to visit USA



Ms Ankita Roy
Assistant Professor,
Department of Design

Received the prestigious National Tourism Award for 'Excellence in Publishing' in the English language for the Book - 'The Magic of Mandu'.



Sourish Chatterjee
Nitish Kumar
Sanyog Sharma
Akhil Kumal Donka
Dr Abhinav Kumar (Mentor)

Received the 1st position in IFFCO-MC Hackathon" jointly held by Mitsubishi Corporation India and NEC Corporation India



Dr Gaurav Sharma
Assistant Professor,
Department of Biotechnology

Received the AMI Young Scientist Award-2021 by the Association of Microbiologists of India

Nature unfolds its treasure at the first ray of sunrise.
Sunrise @IIT Hyderabad

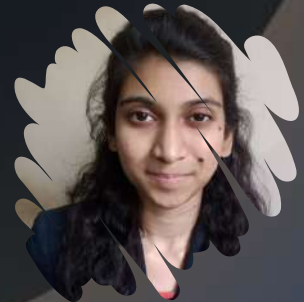
Pic Courtesy: Kaushal Gujrathi

STAY TUNED TO GET THE ***UPDATES***.



Saurav Basumotari
MDes (2022)
FRONT PAGE

Cover Page Courtesy



Anjana Madhav Sailan
MDes (2022)
BACK PAGE



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
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