



॥ सा विद्या या विमुक्तये ॥

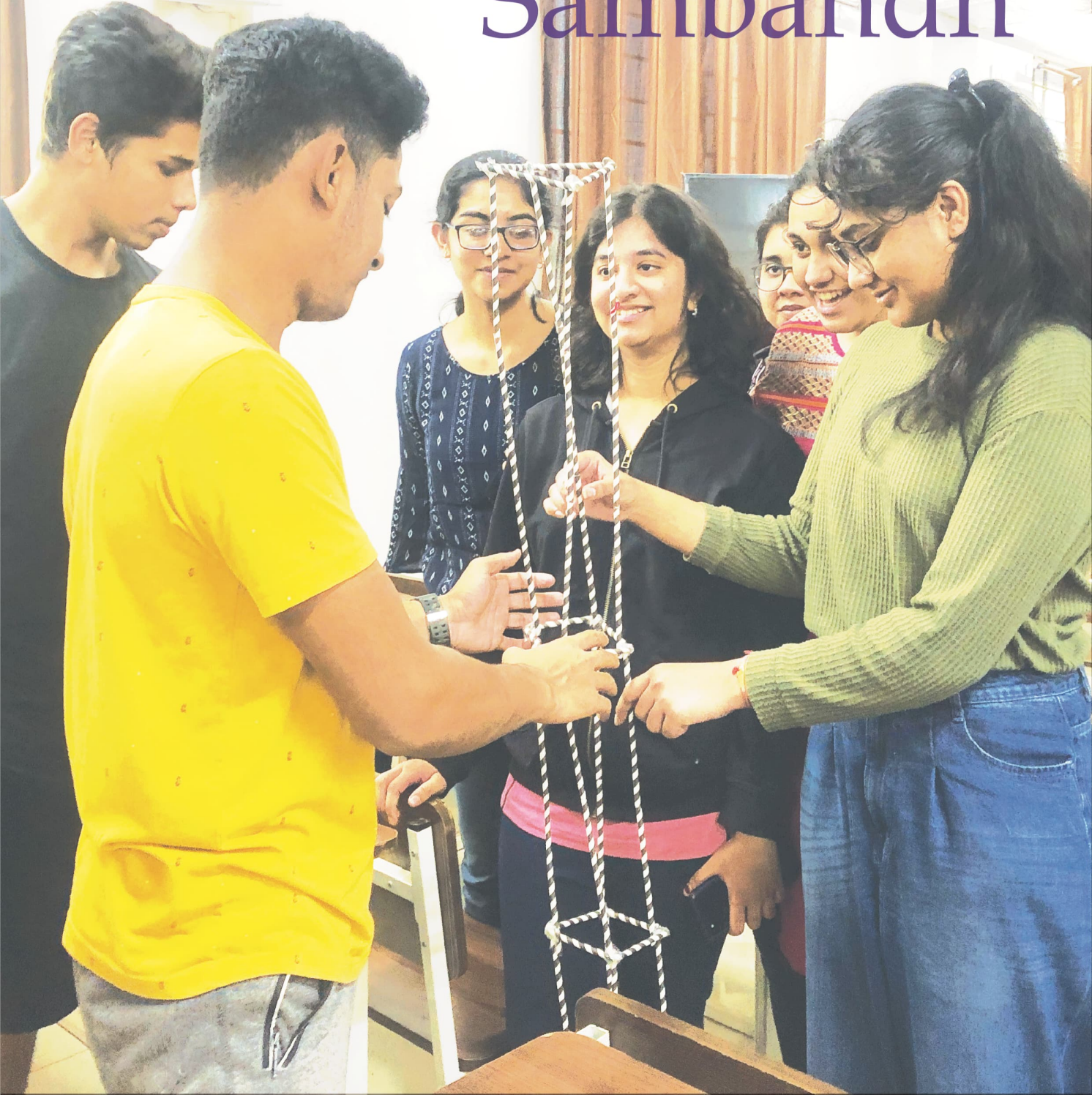
IIT
DHARWAD

INDIAN INSTITUTE OF TECHNOLOGY DHARWAD NEWSLETTER

APRIL 2023

ಸಂಬಂಧ ಸಂಬಂಧ

Sambandh



ಶಿಕ್ಷಣ, ಸಾಹಿತ್ಯ ಮತ್ತು ಸಂಗೀತದ ತವರೂರಾದ ಧಾರವಾಡದಲ್ಲಿ, ಭಾರತೀಯ ತಂತ್ರಜ್ಞಾನ ಸಂಸ್ಥೆ (IIT) ಸ್ಥಾಪನೆಯಾಗಿರುವುದು ನಮ್ಮಲ್ಲಿ ಅತೀವ ಸಂತೋಷ ಮೂಡಿಸಿದೆ. ಇಲ್ಲಿನ ಬಿ.ಟೆಕ್, ಎಮ್.ಟೆಕ್, ಎಮ್.ಎಸ್ ಹಾಗೂ ಪಿಎಚ್.ಡಿ ವ್ಯಾಸಂಗ ಮಾಡುವ ನಾವು ಕೇವಲ ಸೈದ್ಧಾಂತಿಕ ಅಥವಾ ಮೂಲಭೂತ ಸಂಶೋಧನೆ ಮಾಡದೇ, ಅದರ ಜೊತೆಗೆ ಪ್ರಾಯೋಗಿಕ ಹಾಗೂ ಅನ್ವಯಿಕ ಸಂಶೋಧನೆಗೆ ಒತ್ತು ನೀಡಿದರೆ ಸಮಾಜದಲ್ಲಿನ ತಾಂತ್ರಿಕ ಸಮಸ್ಯೆಗಳ ಸಮಾಧಾನದ ಕಡೆಗೆ ದಿಟ್ಟ ಹೆಜ್ಜೆ ಇಟ್ಟಂತಾಗುತ್ತದೆ.

Mr. Deepak Mudakavi - Kannada

धारवाडच्या उत्कृष्ट साहित्यकला व शास्त्रीय संगीताच्या साखळीला ज्ञानाचे परिप्रेक्ष्य जोडणाऱ्या परिकल्पनेचे प्रत्यक्ष रूप हे IIT धारवाड आहे. येथे असणारे उत्तम शिक्षण,सुसज्ज सुविधा,सक्षम तंत्रज्ञान व सामर्थ्यवान विद्यार्थ्यांचे निर्माण सहित राष्ट्रीय उद्धारचे सुद्धा ही संस्था कार्य करत आहे.

Mr. Aryan Trimukhe - Marathi

ശാസ്ത്ര സാങ്കേതിക രംഗത്ത് വിപ്ലവകരമായ പുതിയ മുന്നേറ്റങ്ങൾക്ക് തുടക്കം കുറിക്കാൻ പ്രാവീണ്യമുള്ള, വളരെ വേഗം വളർന്നു വരുന്ന ഒരു വിദ്യാഭ്യാസ സ്ഥാപനമാണ് ഐ. ഐ. ടി. ധാരവാഡ്.

Prof. Sandeep R B - Malayalam

**Many Languages
One Voice
One IIT Dharwad**

আইআইটি ধারওয়াডের সবুজ স্বামী ক্যাম্পাস শিক্ষার্থীদের একাডেমিক, মানসিক, মনস্তাত্ত্বিক এবং সামাজিক কার্যক্রমে উন্নতি করতে সাহায্য করবে।

Prof. Ruma Ghosh - Bangla

આઈઆઈટી-ધારવાડ એ શિક્ષણ અને સંશોધનનું સ્થળ છે, જે પશ્ચિમ ઘાટની નજીક આવેલું છે, જ્યાં સુખદ વાતાવરણ અને શાંતિપૂર્ણ જીવન છે. તેનો એક અનોખો ફાયદો છે કે ત્યાં તે પુણ્ય અને યૌવનોની વચ્ચે સ્થિત છે, નોકરીની શોધ માટે ઉત્તમ ઔદ્યોગિક ઓપરુનાઈઝ્મની સુવિધા આપે છે.

Prof. Rahul J Pandya - Gujarati

आइ आई टी धारवाड का हरित स्थायी परिसर छात्रों को शैक्षणिक, भावनात्मक, मनोवैज्ञानिक और सामाजिक दृष्टि से फलने-फूलने में मदद करेगा।

Prof Gopal S Parashari - Hindi

কর্ণাটকৰ আই আই টি ধৰৱাদে ভৱিষ্যত প্ৰজন্মৰ যুৱ প্ৰতিভাক শিক্ষিত কৰি আমাৰ মহান দেশৰ বৃদ্ধি আৰু বিকাশত অৰিহণা যোগাব। আমি আশাবাদী যে এই প্ৰতিষ্ঠানে আগন্তুক বছৰবোৰত বিজ্ঞান আৰু প্ৰযুক্তিৰ ক্ষেত্ৰত ভাৰতক আগুৱাই নিব।

Prof Nilkamal Mahanta - Axomia/Assamese

ಶಾ.ಪ. ಶಾ.ಪ. ರಿ. ಛಾಂಟಾಡ್ ಬ್ಲಾಕ್ ಧರ್ಮರ ವಿದ್ಯಾರ್ಥಿ ಧಾರವಾಡ ಶೈಕ್ಷಣಿಕ, ಧರ್ಮಾತ್ಮಕ ಏವಂ ಪ್ರಾಜ್ಞಿಕ ಉದ್ದೇಶ ರೇ ವೇಷಣ ಪ್ರಹಾಸಕ ಹೇವ.

Prof. Sudhir Kumar Sahoo - Odiya

Total Number of faculty members	-	76	Number of patents (filed)	-	4
Amount of R&D funding secured	-	32 crores	Total number of undergraduate students	-	701
Total number of ongoing R&D projects	-	87	Total number of postgraduate and PhD students	-	135
Total number of publications	-	432			

Knowledge Resource and Data Centre



From the Director's Desk

namaskAr!

Recently, we had the honor of welcoming the Honorable Prime Minister, Shri Narendra Modi ji, during the inauguration and dedication of our permanent campus to the Nation. It was a moment of immense pride for the entire IIT dhArwAD community to see our Honorable Prime Minister graciously accepting our "uttarIya" on Institute Memorabilia and a symbol of goodwill and appreciation and wearing it throughout the event. During his speech, he highlighted the cultural richness, industrial prowess, delicacies, and a pleasant weather that dhArwAD is renowned for. Moreover, the media coverage of the event has helped us to promote IIT dhArwAD's unique identity and heritage to people across India and beyond.

We have fostered a culture of inclusivity that enables us to provide our students with holistic, all-around development opportunities showcasing their skills and helping them thrive on campus. IIT dhArwAD has established Global Center of Excellence in Affordable and Clean Energy (GCoE-ACE) with Corporate Social Responsibility support from Honeywell Hometown Solutions India Foundation & Lowe's India Pvt. Ltd. The center is focused on developing a model clean energy village in our neighborhood Garag, upskilling the youth, innovation & incubation support in collaboration with the office of PSA, Govt. of India & SELCO Foundation.

We also understand that academic pressures can take a toll on the psychological well-being of our students. To address this issue, we have implemented plans to focus on psychological issues and reduce the insularity among our student body, promoting a sense of community and inclusivity on campus. Our approach to education prioritizes the development of a holistic personality, enabling students to excel in academics while becoming well-rounded individuals with a capacity for positive social impact.

I am happy to announce the launch of our quarterly newsletter, "Sambandh (संबंध)" which will serve as a platform for showcasing our many talents and achievements to the larger scholarly community as well as to all the stakeholders. "Sambandh (संबंध)" emphasizes on building positive connections and fostering healthy relationships and thus be an integral part of IIT dhArwAD's socio-cultural fabric.

As an institutional initiative, "Sambandh (संबंध)" offers a unique opportunity for the voices of our vibrant students and campus community to be heard and celebrated. Our Editorial Board, working alongside faculty members, will ensure that our newsletter provides us with the recent happening in IIT dhArwAD. Additionally, it will also highlight the various aspects of our research initiatives, innovative projects, groundbreaking collaborations, and outreach initiatives. We are confident that "Sambandh" will be an effective tool for building bridges and strengthening relationships with other institutes/companies/individuals across India and abroad, earning our institution the recognition it deserves. We are happy to embark on this new venture and look forward to sharing the many exciting developments at IIT dhArwAD with the world through our quarterly newsletter.

To our bright and motivated students at IIT dhArwAD, I urge you to stay focused, work tirelessly, and strive for excellence in your future professional and academic pursuits. Through your hard work and perseverance, you have the potential to achieve personal fulfillment in conjunction with enhancing the prestige of our esteemed institution.

As members of this community, it is incumbent upon us to give back to our Institute as well as to our nation and to our environment that sustains us. Our quarterly newsletter, "Sambandh (संबंध)," embodies our mutual commitment to address complex problems (समस्या) through cost-effective and feasible pacifications solutions (समाधान) so as to attain plethora (समृद्धि) and building robust relationships (संबंध).

To achieve our mantra – from "Samasya (समस्या) through SamAdhAn (समाधान) to obtaining Samruddhi (समृद्धि) we all have to ensure healthy relations i.e. Sambandh (संबंध)".

Best wishes.



[Prof. Venkappayya R. desAi]



Prof. Venkappayya R. desAi
Director, IIT dhArwAD



॥ सा विद्या या विमुक्तये ॥

IIT dhArwAD's motto:
"SA vidyA yA VimuktayE"
"That is knowledge which
sets us free".

The circle represents the
rising sun, enlightenment,
receiving of knowledge,
intellectual and
spiritual growth.

Permanent Campus of IIT dhArwAD: A New Milestone

Sambandh Editorial Team

On Sunday, March 12th 2023, the permanent campus of Indian Institute of Technology (IIT) dhArwAD was inaugurated by the honourable Prime Minister of India, Shri Narendra Modi. The ceremony was attended by a gathering of students, faculty, and distinguished guests who expressed excitement, pride, and awe. This event is a reminder of India's technical education sector's growth and development over the years, with IITs being a symbol of excellence in engineering and technology education in India.

The palpable excitement in the air was evident as the Prime Minister inaugurated the campus, and students and faculty cheered and clapped in unison. The ceremony was a grand spectacle, with colourful decorations, music, and a festive atmosphere. As the Prime Minister delivered his address, the audience was captivated by his words, which underscored the importance of education and the role of institutions like IIT dhArwAD in shaping the future of India. He remarked that "the new campus of IIT dhArwAD will facilitate quality education, nurture young minds for a better tomorrow, and place this institution on the global map."



The permanent campus of IIT dhArwAD is spread across 470 acres of land. The campus design is based on the theme of "sustainable green campus, inspired by historical origins of HubbaLLi dhArwAD as the 'dwAr' city (gateway) to Western Ghats and vast sea beyond. The design envisions campus as Gateway to Knowledge, integrating the natural features and valleys". The Institute has more than 70 faculty members across ten Departments: Biosciences and Bioengineering (BSBE); Chemistry; Chemical and Bio-chemical Engineering; Civil and Infrastructure Engineering; Computer Science and Engineering (CSE); Electrical Engineering (EE); Humanities and Social Sciences (HSS); Mathematics; Mechanical, Materials and Aerospace Engineering (MMAE); and Physics. At present, the Institute offers 4-year B.Tech programs in Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Engineering Physics, Civil and Infrastructure Engineering, Chemical and Biochemical Engineering and Mathematics & Computing. Additionally, the Institute also offers an Integrated BS-MS program in inter-disciplinary sciences.

The Institute has also set up a Sophisticated Central Instrumentation Facility (SCIF) with advanced scientific test and measurement equipments. The Institute has nearly 35 non-teaching staff members at various levels. The Knowledge Resource Centre of the institute is well equipped with nearly

5000 books and provides access to more than 8500 research journals. The faculty members have secured about ₹30 crore worth of sponsored R&D projects, executed about ₹1.5 crore worth of industrial consultancy projects, and published more than 400 scientific papers till now. IIT dhArwAD has partnered with well-known institutions and organizations such as CSIR-4PI, UNB (Canada), RRCAT, UAS dhArwAD, ITI Limited, SDM University, ANTRIX, Honeywell, BEL etc.



Housing Block

The new campus of IIT dhArwAD is a testament to India's commitment to providing quality education to its citizens and becoming a global leader in technical education. With its world-class facilities and renowned faculty, IIT dhArwAD is set to become a global leader in technical education, just like its predecessors. The establishment of IIT dhArwAD will play a crucial role in India's growth and development, paving the way for future generations of leaders and innovators.

“A Prayer” and Many Promises to Keep: IIT dhArwAD and A New Chapter in the Western Ghats

Dr. Ridhima Tewari, Assistant Professor, IIT dhArwAD

A Prayer (ಪ್ರಾರ್ಥನೆ, प्रार्थना) by da RA BEndre, the foremost lyric poet in Kannada literature of the 20th century, is emblematic of the ethos of love and mellow goodness that dhArwAD exudes. A quiet and restful ‘dwAra’ for the long-distance, weary traveller through the Western Ghats, dhArwAD awaits to be discovered for its silent charms and beautiful sunsets. At the risk of romanticising its slow-paced, old-world charm, it will not appear as an exaggeration to say that one falls in love slowly with the landscape.

While imbibing the cultural essence of North KarnATaka in particular and the state of Karnataka in general, the twin cities of HubbaLLi-dhArwAD have seen a gamut of changes in recent years- the most spectacular of them being the setting up of the Indian Institute of Technology, dhArwAD (IIT dh). Established in the year 2016, IIT dhArwAD has, while benefitting from the educational and cultural heritage of the twin cities, contributed to an expansion of the technological and scientific horizons of the region. This has meant basic yet sophisticated contributions such as developing an app to map Dharwad city’s bus routes (as early as 2017 by a team of Computer Science students), to the larger contribution of bringing the attention of industry and research organisations to this part of KarnATaka. The IIT Act (1961) underlines the objectives of IITs as “to provide for instruction and research in some branches of Engineering and Technology, Science and Arts for the advancement of learning and dissemination of knowledge...”. Additionally, the Science Policy Resolution (SPR) and The Technology Policy Statement (1983) interlink the IITs to the greater task of providing technology for various sectors- agriculture, industry, science and education, but more importantly, for “people’s needs”. The inauguration of the permanent campus of IIT dhArwAD in March 2023, is a reminder of such glorious promises made towards furthering scientific education and alleviating local and national problems.

The Institute, though in its infancy, has started taking earnest steps towards the realisation of these crucial goals- whether through active research and outreach during the COVID-19 pandemic, through innovative, interdisciplinary programmes for young minds, or, more recently, through the inauguration of its smart, sustainable campus that has won accolades such as from Green Rating for Integrated Habitat Assessment (GRIHA). In a fitting tribute to the culture of the twin cities, the Institute is perhaps the first in the country to incorporate performing arts as a compulsory component of its B.Tech curriculum.

The traveller still rests here. The traveller now also seeks scientific and social challenges to conquer through the lecture theatres and laboratories of IIT dhArwAD, and as Bendre reminds, let us “together shine...and together reach for the holy peak.”

*Let us together learn
and together play
and doing so together understand:
let us together eat
and together drink
and doing so together do the work at hand.*

*Let us together walk
and together feel
and together hear and speak:
let us together grow
and together shine
and together and together reach for the holy peak.*

(Excerpts from “A Prayer”, translated by Madhav Ajampur)



uNakal Lake - HubbaLLi-dhArwAD

Picture Credit: Siddhant Kumar
B Tech - Mechanical Engineering , 3rd year

Achievements and Awards

For Sports Activities

1st Pan Inter II Yoga Sports Meet 2022.

IIT Dharwad represented by students won 3 Gold medals, 1 bronze medal and group championship conducted at IIT Bhilai.

[Inter IIT Yoga 2022-23 - 21st June 2022]



Gold medal in Weight Lifting, 55th Inter IIT Sports Meet at IIT Delhi.

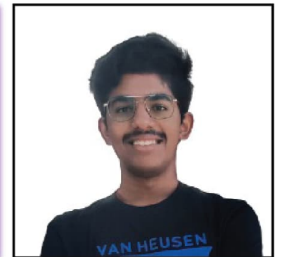
Bathina Siva Kumar, Dept of Mechanical, Materials and Aerospace Engineering

[Inter IIT Sports Meet 2022-23 - 14th to 24th December 2022]

Best player award in Chess in the 55 th Inter IIT sports Meet 2022-23

Mr Aditya Kalyani, Dept. of Electrical Engineering

[Inter IIT Sports Meet 2022-23 - 14th to 24th December 2022]



IIT dhArwAD secured 13th position in 55th Inter IIT sports 2022-23.

IIT dhArwAD Cricket Team-qualified for quarter finals at Karnataka State Cricket Association (KSCA).



The first season "Sangharsh"- Inter Hostel Cricket Championship was successfully organized.

Achievements and Awards

Chanakya Fellowship program 2022-23 from TIH-IoT, IIT Bombay
Mr. Miriyala Pranay Kamal (Dept. of Electrical Engineering)



2nd place in Poster Presentation, International Conference on Nanoscience and Photonics for Medical application.
Mr. Jiro Karlo, PhD Scholar (Dept. of Biosciences and Bioengineering)

Best Student Paper Award-Runner-Up. IEEE International Conference on Signal Processing and Communication (SPCOM-2022).
Organizer: IISc, Bangalore.

Mr. Jagabandhu Mishra, PhD Scholar (Dept. of Electrical Engineering)



Awarded Raman-Charpak fellowship from DST, Govt of India to carry out part of PhD work at University of Reims, France.
Ms. Dimple Saikia (Dept. of Biosciences and Bioengineering)

For Faculty



Outstanding Engineer Award at the IEEE Power and Energy Society Bangalore Chapter and SERB SIRE fellowship award from SERB, Govt of India.

Dr. Satish Naik Banavath (Dept. of Electrical Engineering)

Distinguished Alumni Award 2023 in the field of Academia and Research.
Dr. Somashekara M A (Dept of Mechanical, Materials and Aerospace Engineering)



Chanakya Fellowship from IIT Bombay.
Dr. Rakesh Lingam (Dept of Mechanical, Materials and Aerospace Engineering)

Achievements and Awards

For Alumni

Best Student Paper Award, at IEEE International Conference SPCOM - 22, at IISc Bangalore.

Vaishnavi Patil (2022)- Dept. of Electrical Engineering



Best paper of the session award in 48th National Conference on FMFP 2021.

Akshay Uday Shirsat (2022), Dept of Mechanical, Materials and Aerospace Engineering

Awarded with the promotion from Graduate Engineer Trainee to Senior Engineer in LTIM

Karan Anvekar (2022), Dept. of Electrical Engineering



Winners in 2 out of 3 Integration Challenges of UHI Hackathon, Ayushman Bharat Digital Mission by National Health Authority (NHA)

Sonu Sourav (2021), Dept. of Electrical Engineering and team

2nd Runner Up position in CSAW embedded security challenge (2020), 4th position in TCTD Challenge (Inter IIT Tech Meet 7.0, IIT Bombay), 4th position in D.R.D.O. SASE's UAV FLEET Challenge

Rishit Saiya, Dept. of Computer Science and Engineering (2022)



Prof. L.P. Singh Power System Research Award at IIT Kanpur

Nitesh Singh (2020), Dept. of Electrical Engineering

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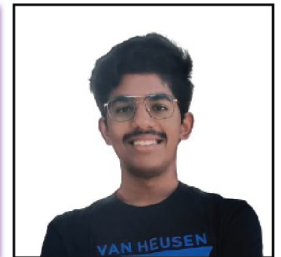
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Global Center of Excellence in Affordable and Clean Energy (GCoE-ACE)

Global Center of Excellence in Affordable and Clean Energy (GCoE-ACE) was established and inaugurated on 28th January, 2022. Prof. Dhiraj Patil is the faculty in charge of the project. Prof. Abhijit Kshirsagar, Prof. Keerthi M C and Prof. Gopal Sharan Parashari form the committee of members, the staff comprises of Pragnya, Vereesh, Praveen and Shilpa. In the financial year 22-23, three major projects were implemented as part of the GCoE-ACE's initiatives: 1) Modern Clean Energy Village: Garag, 2) Upskilling and Outreach Programs, and 3) Catalyse Tech Innovation Challenges. Among these programs, Upskilling and Outreach Programs are funded by Lowe's India Pvt. Ltd. and Modern Clean Energy Village: Garag, and Catalyse Tech 2022 fall under the CSR initiatives of the Honeywell Hometown Solutions India Foundation (HHSIF). Moreover, GCoE-ACE is associated with the Office of the Principal Scientific Advisor, GOI. The center is also in collaboration with the SELCO Foundation.

1) Modern Clean Energy Village Project in Garag:

Within the broader agenda of supporting renewable energy sources, this scheme is designed to make Garag, the nearby village of the institute self-sustained by utilizing solar energy. Currently, twelve families and other locations in the village such as the Primary school, hospitals etcetera are chosen to be aided with solar power and solar-power-enabled machines. As a part of this project, Garag will be provided with sewing machines, roti-making machines, chilli-pounding machines, solar-powered smart TVs to schools and anganwadis, blowers and power hammers for blacksmiths and solar power to the village's primary health center, to the veterinary hospital, to barber shops, to Khadi bhandars (Khadi cloth production centers) and solar-power enabled street lights etcetera.



2) Upskilling Programs:

With a vision to generate new skills, competencies, and capabilities in participants, GCoE-ACE organizes Upskilling Programs. As a part of this initiative, nine upskilling and awareness programs have been organized so far. In these programs, the participants are generally offered lectures and workshops where various experts share their knowledge/expertise.

Program Details

No. of the Programs	Title of the Programs	Date	No. of Participants
1	Sustainable Development Goals	3rd & 4th November 2022	58
2	Communication skills	24th & 25th November 2022	62
3	Management skills	19th & 20th January 2023	41
4	Science Day for JNV Dharwad Students	9th Feb 2023	200
5	Solar Energy systems theory and Hands-on	24th Feb 2023 & 3rd March 2023	90
6	Digital Design and Microelectronics	17th & 18th March 2023	21
7	International Day of Happiness	20th March 2023	10
8	Waste Management	23rd March 2023	114
9	Emerging Technologies for Sustainable Energy Production	24th March 2023	286
10	Outreach Workshop cum Field Visit and Brainstorming Event to Implement Community Network for Soliga Community in B.R. Hills	7th, 8th, 9th April 2023	-

3) Catalyse Tech 2022:

It is an opportunity to support innovators with innovative idea(s) for the identified problem(s) or an entrepreneur working on building inclusive innovation technology in the clean energy domain. The center has received more than 150 applications out of which 17 best innovations are funded.



4) TREES:

Furthermore, the center organizes TREES (Talk on Renewable Empowering Earth and Sustainability), where eminent speakers deliver talks on various topics. Under this initiative, 20 talks have been organized so far.



Sl. No.	Title of the talk	Name of the Speaker
1	Poverty, Sustainability, and Technology.	Dr. Harish Hande
2	National Biofuel Policy & Initiatives – Evolving Ecosystem	Ramakrishna Y B
3	Functional nanomaterials and devices for energy and sensing applications	Prof. Sohini Kar-Narayan
4	The challenges and chances of wind energy digitalization	Dr. Sarah Barber
5	Ocean Renewable Energy Technologies for Achieving Sustainable Development Goals	Prof. Vengatesan Venugopal
6	High-performance cooling techniques for decarbonisation of data centers	Prof. Poh Seng (PS) Lee,
7	Earth Day: Water & Crops	Dr. VS Prakash
8	High-efficiency integrated hybrid solar heating, cooling and power systems for distributed applications	Prof. Christos N. Markides
9	Outlook in Electricity Sector in India	Ms. Vibhuti Garg
10	Biodiversity for sustaining the earth's ecosystems	Dr R J Ranjit Daniels
11	Power Engineering Education in the Age of Climate Crisis - A Holistic View	Prof. Ned Mohan
12	Pinpointing Transient Processes and Inhomogeneity within Batteries: Aiding Design of Rechargeable Alkaline and All-Solid-State Li Cells	Prof. Joshua Gallaway
13	4D (Design-Development-Demonstration-Deployment) of Ingenious Solar Technologies	Dr. K. Srinivas Reddy
14	Nanosystems and architectures for enhanced energy storage	Prof. K.R.V. Subramanian,
15	Alternate Fuels and Advanced Combustion Engines for Sustainable Transport	Dr. Niranjan M Narasimhamurthy
16	Energy harvesting trends and applications	Dr. Pradeep V. Malaji
17	Introduction to Solid State Ionics	Dr. Amrtha Bhide
18	Modeling of Gaseous Radiation for the Applications of Combustion, Plume Radiation etc.	Prof. Pradeep Kumar
19	New Challenges for Energy Transition in India	Ms. Swati D'Souza
20	Recent Challenges and Developments in Solar Energy Technologies and Its Applications.	Ms. Richa Parmar

The Ascent of Technology

Mr. Aryan D Trimukhe , 3rd Year B Tech - CSE

Over the past few years, we have observed significant technological advancements, which have opened up new avenues and enhanced our quality of life. From artificial intelligence (AI) to quantum computing, digital education, healthcare, and art, several areas are experiencing exceptional progress. This article delves into some of the most critical technological advancements that are shaping our future.

One of the most noteworthy AI advancements is the revolutionary technology developed by OpenAI, known as ChatGPT. This language model utilizes machine learning algorithms to generate responses that are comparable to human-written text. ChatGPT has the potential to transform the way we interact with virtual assistants and chatbots, making them more life-like and natural.

The art-world is also witnessing a transformation through AI, with the ability to generate art-work that is indistinguishable from those created by human artists. AI algorithms can analyze millions of images and patterns to identify trends and generate new and unique art pieces. Despite concerns regarding the emotional depth and complexity of AI-generated art-work, the possibilities for AI-generated art are endless.

Contrary to popular belief, AI is not replacing human workers but rather serving as a valuable tool to enhance productivity and efficiency. AI can automate routine and repetitive tasks, freeing up human workers to focus on more creative and complex tasks. Additionally, AI is creating new job opportunities in fields such as data science and machine learning.

In the realm of processing power, significant strides are being made through quantum computing and miniaturized processing. Quantum computing allows for faster and more efficient processing of large data sets. In contrast, miniaturized processing involves shrinking the size of computer chips to enable more powerful processing in smaller devices. These advancements will have significant implications for everything from scientific research to consumer electronics.

Technology is also transforming education, with digital tools and platforms enabling new forms of learning and

collaboration. Augmented and virtual reality can bring learning to life in exciting ways, such as exploring historic sites and scientific phenomena in virtual environments, enabling students to gain a deeper understanding of complex concepts.

As we embrace these technological advancements, it is crucial to be mindful of their ethical implications. We must ensure that AI and other technologies are developed and used in a way that benefits society as a whole. Addressing concerns about the ethical implications of AI, its potential impact on employment, privacy and security is vital. We must work together to develop regulations and standards that promote the responsible and ethical use of these technologies.

Moreover, it is essential to ensure that technology is accessible to all, regardless of their socio-economic status or location. As we push the boundaries of what is possible, we must ensure that no one is left behind in the process. Technology can be a powerful tool for driving positive change, but only if we use it to promote inclusivity and equity.

PARSEC - parallax second i.e., a unit for expressing astronomical distances, the annual tech fest of IIT dhArwAD, offers a unique opportunity for students to advance in the tech industry by showcasing their innovative ideas and learning about the latest technological advancements. This event provides a platform for participants to collaborate, share their knowledge and network with industrial professionals hence creating a space for young enthusiasts to excel. PARSEC's focus on inclusivity and equity ensures that every student, regardless of their background or skill level, has equal access to technology and the opportunity to succeed. Not only does PARSEC promote technological innovation, but it also emphasizes the development of soft skills such as teamwork, communication, and leadership, making it stand out as a comprehensive learning experience. By encouraging participation from diverse groups of students, PARSEC fosters a welcoming and inclusive environment, setting it apart as a unique and valuable experience for all participants.

In conclusion, we are at the threshold of a technological revolution that has the potential to shape our future in unimaginable ways. Technology has the power to enhance productivity, improve healthcare and education and transform the world we live in. However, we must also be mindful of the ethical implications and ensure that technology is used in a way that benefits society as a whole. With the right approach, we can create a future that is both technologically advanced and socially responsible.



PARSEC - IIT Dharwad Annual Tech. Fest

Events

International Women's Day was celebrated at IIT dhArwAD with a lecture and discussion on "Women in Science: Opportunities and Challenges" by Dr. Pallavi Deshpande, Virologist and Social Worker.



Dr. Naveen Kadayinti, Dept. of Electrical Engineering, organized Vivriti'23 - First Annual 3-minute Research Talk Series at Dept. of Electrical Engineering, IIT dhArwAD.



Prof. S. R. M. Prasanna, Dept. of Electrical Engineering and Dean [FW , R&D] organized the Indic-Multilingual Speaker Verification Challenge-2022(I-MSV 2022), O-COCOSDA 2022 (The 25th Conference of the Oriental COCOSDA).

[Date : 12 Aug 2022 - 26 Nov 2022]



Dr. Gopal Sharan Parashari, Dept of Humanities and Social Sciences organized ICSSR sponsored 12 days capacity building program on the Advances in managing Climate-Food-Water nexus in collaboration with Dept. of Agricultural Economics, University of Agriculture Science, dhArwAD.

[Date : 30 Jan 2023 - 11 Feb 2023]

"prAbOdhinI" a student led forum was launched with a inaugural talk on "Dharma-driven progressive Society" by Sri Raghunandana.

[Date : 25th January 2023]



Reverie musical event organized by Rhapsody Club (Music Club)




प्रबोधिनी
INVITES YOU ALL FOR AN INAUGURAL TALK ON
**DHARMA-DRIVEN
PROGRESSIVE SOCIETY**

SPEAKER
SRI RAGHUNANDANA

About speaker
Sri Raghunandana, currently the coordinator of *Akhila Bharata Pragna Pravaha Vaicharika Vedika*, dedicated himself to be a full-time volunteer for social causes, especially to create social awareness among students studying in colleges in the region of North Karnataka.

Schedule
Welcoming the speaker
Lamp lighting and Saraswati vandana
Opening address by Prof. Tembe, Dean SW
Address by Sri Raghunandana
Vote of Thanks
laghu upAhr

25 Jan,2023
mAgha shukla
chaturthi

5pm-6pm

Central Hall
Second floor, IIT
Dharwad

Events

Dr. Surya Prakash Ramesh, Dept of Mechanical, Materials and Aerospace Engineering organized 6 day long industrial Visit to Tata Hitachi Training Centre.



Eunoia- the literary club of IIT dhArwAD organized a student debate on International Women's Day.

Dramatics club - Udghosh, successfully organized Actomania and Spotlight event.



National Service Scheme(NSS) IIT dhArwAD successfully organized 2nd blood donation camp.

SOAPBOX event was organized by Drishti-Student Media Body as part of Student General Elections 2023 by student's election committee, IIT dhArwAD.



The annual HR Conclave event was organized by Career Development Cell, IIT dhArwAD.

[Date: 12th February 2023]

Dance Club - The Sapphire, successfully organized Inter Branch Dance Competitiion.







॥ सा विद्या या विमुक्तये ॥

IIT
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