

MAY 2023

अनुसंधान

IITD RESEARCH NEWSLETTER

ILLUMINATING THE PATH OF RESEARCH AT IIT-DELHI

Unveiling the Latest Insights into Research @ IIT-Delhi

Welcome to the latest edition of Anusandhan, the research newsletter of IIT-Delhi. As a leading research institution, we are dedicated to pushing the boundaries of knowledge and fostering a culture of innovation. In this issue, we bring you a comprehensive overview of the diverse and impactful research happening within our institution and its wider impact on society.

This is an in-depth exploration of our groundbreaking research projects, highlighting the exceptional work being conducted across various disciplines. The newsletter will keep you updated on the exciting conferences, symposiums, and workshops that bring together renowned scholars and experts to exchange ideas and drive collaboration.

We hope this edition of Anusandhan ignites your curiosity, inspires you to engage with our researchers, and showcases the transformative impact of research conducted at IIT-Delhi. We invite you to explore the exciting topics covered in this newsletter and join us in our quest for knowledge and innovation.

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Research in Focus

 **Lab2Market**
2023 **WINNERS**

Title: "AI-Driven Heart Disease Diagnosis"

Prof. Anubha Gupta, IIIT Delhi, and
Dr. Manu K. Shetty, Maulana Azad Medical College, New Delhi



Dr. Shetty and Prof. Gupta are renowned in AI and healthcare, having conducted extensive research on the subject. They believe that a combined effort between doctors and engineers can effectively address healthcare challenges and have been working together to develop practical AI solutions.

Prof. Anubha Gupta, IIIT-Delhi, and Dr. Manu K. Shetty, Associate Professor at Maulana Azad Medical College, New Delhi, have won the first prize at the Lab2Market2023 event organized by INDIAai.

Diagnostic processes

The winning project is an explainable AI model that diagnoses heart disease using ECG data. The model boasts an impressive 95% accuracy and offers a unique feature: it provides explanations for the decisions it makes. This ability to offer a rationale for its decisions is critical in fostering trust among doctors, who can then feel confident in incorporating the AI model into their diagnostic processes. Furthermore, by demystifying the traditionally opaque nature of AI models and shedding light on the inner workings of the decision-making process, this groundbreaking innovation transforms the AI model from a black box to a transparent and accountable tool.

This transparency in decision-making allows doctors to understand the AI's recommendations better and ensures that patients receive accurate diagnoses based on reliable data. The explainable AI model not only promotes the responsible use of AI in healthcare but also encourages further collaboration between medical professionals and AI researchers, paving the way for a new era of innovative and trustworthy AI-driven medical solutions.

ECG devices

The innovative AI model has the potential to revolutionize healthcare in areas where trained cardiologists are scarce, such as Primary Health Centers (PHCs) and Community Health Centers (CHCs). ECG is one of the most important screening tools for heart disease, and early diagnosis is crucial for effective treatment and management.

By integrating this AI model into existing ECG devices, healthcare professionals at PHCs and CHCs can rely on accurate diagnoses and save precious time in critical situations. Furthermore, with prompt diagnosis using the AI model, doctors at PHCs and CHCs can quickly refer patients to appropriate tertiary care centres for specialized treatment without delay, significantly improving the chances of successful outcomes and saving lives.

Conclusion

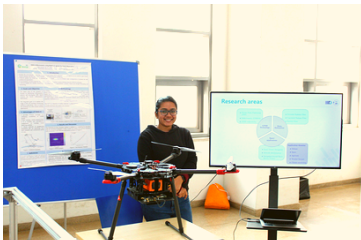
Dr Shetty and Prof. Gupta emphasize that for AI models to be effectively utilized in healthcare, they must be able to provide a clear rationale for their decisions. This transparency not only develops trust among medical professionals but also ensures that patients receive the highest standard of care. In addition, this initiative demonstrates the effectiveness of interdisciplinary teamwork in tackling real-world problems. It will also play an essential role in influencing the future of healthcare, making it more accessible, efficient, and reliable for everybody.

Focused Events



IIT-Delhi hosted the Research Innovation and Incubation Showcase (RIISE 2023) on May 11-12, 2023. The showcase was attended by over 600 participants from academia, industry, and government agencies across India and beyond, making it a truly international event.

Glimpse of other events



The showcase featured a keynote talk, panel discussions, project demos, and poster sessions on a wide range of topics related to intelligent systems engineering, including artificial intelligence, demystifying 6G communication, EV Design, and Industry 4.0, among others. The conference also provided a platform for researchers, practitioners, and students to exchange ideas, showcase their work, and network with peers. In line with the institute's focus on technology transfer, there were sessions organized on "Routes to Monetize Research", and "Entrepreneurship – its flavors and impact on the World".

The keynote talk was given **Prof. Manindra Agrawal** from IIT Kanpur on the topic "Research from First Principles". Many reputed panelists including **Prof. Ram Gopal Rao**, Group Vice Chancellor, BITS Pilani Campuses; **Dr. Satish Jamadagni**, Senior VP Reliance Jio; **Dr. Suchita Markan**, ICMR; **Dr. Manoj Kumar**, STMicroelectronics; **Mr. Mahendra Pratap**, Co-founder HCL; **Prof. Kaushi Saha**, IIT Delhi; **Prof. Ashwin Gumatse**, IIT Bombay; **Prof. Aravind Chandiran**, IIT Madras; **Mr. N. Mohan**, CEO Delhi EV Cell; **Mr. Suresh Arikapudi**, Tata Motors, and many more shared their insights and interacted with faculty, students, and guests during the day. Their sessions covered various topics, from the latest computer vision and robotics advances to AI's ethical and societal implications.

More than 10 budding start-ups in the institute shared their idea and strategy with the visitors. More than 80 project demos were set up to demonstrate technologies being developed at IIT-Delhi. The Research Showcase had more than 300 posters on topics like - Applications of AI, Information Processing for Socio-Economic Settings, Lab Showcase, Urban Future & Access, Emerging Technologies in Medicine & Computing, Mathematical Foundations of Computing, Smart & Intelligent World, Self-reliance in Semiconductors, Computing Systems & Security, Advances in AI.

Other Research Events

- 1 Pixel Design Conference
- ECE department organized INDUSTRY DAY
- Seminar on 'Systems Biology in Single Cells: A Tale of Two Viruses' by Dr. Abhyudai Singh
- Webinar on "How AI can Transform Hiring Processes" by Mr. Rohit Narain
- Symposium on Computational Creativity
- Start-up Fair 2023
- Workshop on Public Transit Data Format using Python
- Talk on 'Use of Quantum Computing for Earth Observation' by Jitesh Lalwani

Faculty in Focus

ARJUN RAY

Dr. Arjun Ray is a computational structural biologist and earned his Ph.D. degree from CSIR-IGIB. His formal education in the field of chemistry and biophysics led him to be interested in understanding how biological processes are carried out by three-dimensional interactions. His previous researches include developing methods and tools in the field of structure prediction and force distributed analysis of lipids, deciphering mechanistic understanding of interactions between various biological molecules and working with multi-scale systems. As a structural biologist, he has been regularly working with techniques for structure prediction, molecular dynamics simulations and biomolecular docking. Along with his research endeavours, he has held several positions such former President of Regional Student Group (India) for the International Society for Computational Biology.

Research Interests

- Deciphering the mechanism of CRISPR-Cas9
- Elucidating molecular interactions in the reverse cholesterol pathway
- Structural genomic problems



Research Interests

- ML and DL approaches for druggability prediction
- QM fragmentation based approaches for druggability prediction
- Parallel virtual screening in HPCs and GPUs for accelerated drugs discovery
- Flexible docking assisted drugs discovery
- Atomistic simulation of virus-host cell interaction



N. ARUL MURUGAN

Dr. N. Arul Murugan, is a Ph.D. from Solid State and Structural Chemistry unit at Indian Institute of Science, Bangalore, India). He was awarded a Ph.D. degree in the year 2005 for his thesis contribution entitled "Molecular simulations of temperature induced disorder and pressure induced ordering in organic molecular crystals." After Ph.D., he was on postdoctoral visits to various institutes in Europe such as ULB (Brussels, Belgium), KTH (Stockholm, Sweden), and UPC (Barcelona, Spain) until 2011, and his research stays were supported generously by the prestigious fellowships from Belgian national fund for scientific research (FNRS), Wenner-Gren foundation and Spanish Ministry of Science and Innovation (for Juan de La Cierva fellowship). From the year 2011, he was employed as a researcher at the School of Biotechnology, KTH Royal Institute of Technology and from 2015 he was appointed as a Docent (Associate Professor) in theoretical chemistry and Biology at the same school. He has been involved in teaching and supervision at KTH since the year 2013. His research focuses on the computational development of drugs and PET tracers/optical probes for neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease and infectious diseases including Covid-19. His research is also devoted to the development of QM and machine learning based approaches for druggability prediction. He has published about 120 articles in international peer-reviewed journals including Sci.Adv., PNAS, JACS, Biosens. & Bioelectron., JMedChem, JCTC, JPClett., He has also written 3 book chapters and edited a book. He is serving as an editorial board member for Scientific Reports and IJMS.

Featured Publications

Reliable and Cost Effective All Optical Wireless Architecture for Broadband Access Network

Paper by Priyanka Singh, Dr. Vivek Ashok Bohara, and Dr. Anand Srivastava was accepted for publication in IEEE/OSA Journal of Optical Communication and Networking (JOCN).

This paper explores the benefits and trade-offs by integrating FSO based back-end with LiFi based front-end for an active optical network (AON).

Remaking Cities- Urban Reforms in Ahmedabad and Kanpur, India

Book by Dr. Praveen Priyadrashi was published by Routledge.

This book presents a systematic analysis of the differential implementation of urban reforms in two Indian cities, Ahmedabad and Kanpur.

ANROL: Autonomous Navigation based on ROS and Laser Odometry

Paper by Akshat Vikram Singh, Yash Agrawal, Dr. Rahul Gupta, Mr. Abhishek Kumar, and Prof. Vivek Ashok Bohara was presented in IEEE COMSNETS.

In this paper, the design and implementation of robust and precise localization and navigation scheme are proposed for an autonomous mobile robot.

A Sense Amplifier Based Bulk Built-In Current Sensor for Detecting Laser-Induced Currents

Paper by Debjit Batabyal, Sandeep Kumar Singh, Rajnish Kumar Mishra, Dr. Anuj Grover was presented at VLSI Design & Embedded Systems conference.

In this paper, a circuit and method to detect side-channel attacks in secure ICs are proposed. This method uses a combination of sense amplifiers that evaluates the sampled substrate current in a time-interleaved manner.

An Energy Efficient Dual IRS-aided Outdoor-to-Indoor Communication System

Paper by Mohd. Hamza Naim Shaikh, Prof. Vivek Ashok Bohara, Prof. Anand Srivastava & Dr. Gourab Ghatak was accepted in IEEE Systems Journal.

In this paper, the authors propose a dual IRS-aided communication model for outdoor-to-indoor wireless communication. The scenario comprises an outdoor base station that communicates with the indoor users with the aid of two distinct IRSs.

Influencers as institutions: Impact of digital politics in the Global South

Paper by Karishma Sinha, Paarmita Jhalani, Aasim Khan, and Payel Chattopadhyay Mukherjee was published in the Global Policy journal.

In this paper, the researchers seek to clarify key conceptual issues with the idea of 'influence' in digital politics and develop a framework to understand its institutional impact, particularly in the Global South.

On the Optimal Assignment of Mirror Elements in UAV and OIRS-Assisted OWC based Architecture

Paper by Priyanka Singh, Prof. Vivek Ashok Bohara, and Prof. Anand Srivastava was accepted in IEEE 97th Vehicular Technology Conference

This paper aims to utilize the OIRS-assisted UAV to improve the performance of optical wireless communication (OWC) systems. In this work, multiple mirror elements of the OIRS are grouped and assigned to the user.

Future scope of research on the biodesulfurisation and biodeminalisation of petroleum and coal for their utilization in environment friendly way for sustainable development

Paper by Dr. Durlubh Kumar Sharma (Visiting Faculty, IIIT-Delhi) was published in the Acta Scientific Biotechnology journal.

In this paper, future scope of research on cleaning the coal and petroleum along with the utilization of CO₂ has been discussed.

Deep Neural Network Augmented Wireless Channel Estimation for Preamble-based OFDM PHY on Zynq System on Chip

Paper by Syed Asrar ul Haq (Ph.D. Student, IIIT-Delhi), Abdul Karim Gizzini (ETIS, France), Shakti Shrey (MTech Student, IIIT-Delhi), Sumit J. Darak (Faculty, IIIT-Delhi), Sneh Saurabh (Faculty, IIIT-Delhi) & Marwa Chafii (New York University, Abu Dhabi) was accepted for publication in IEEE Transactions on VLSI Systems.

This paper considers the design and implementation of deep neural network (DNN) augmented LS-based channel estimation (LSDNN) for preamble-based orthogonal frequency-division multiplexing (OFDM) physical layer (PHY) on SoC.

A Deep Neural Network-based Space debris trajectory prediction after an elastic collision event

Paper by Harsha M, IIIT-Delhi, Ananya Ajay Dave, IIT Kharagpur Gurpreet Singh, UR Rao Satellite Centre Dr. Arun Balaji Buduru, IIIT-Delhi, Dr. Sanat K Biswas, IIIT-Delhi was accepted for oral presentation at International Conference on Spacecraft Mission Operations 2023

The paper presents a Deep Neural Network (DNN) - based approach to predict the trajectory of space debris after the occurrence of an elastic and non-destructive collision event with an active satellite.

Graph Regularized Probabilistic Matrix Factorization for Drug-Drug Interactions Prediction

Paper by S. Jain, E. Chouzenoux, K. Kumar and A. Majumdar was published in IEEE Journal of Biomedical and Health Informatics.

This paper presents a novel Graph Regularized Probabilistic Matrix Factorization (GRPMF) method, which incorporates expert knowledge through a novel graph-based regularization strategy within an MF framework. An efficient and sounded optimization algorithm is proposed to solve the resulting non-convex problem in an alternating fashion.

DeConDFFuse : Predicting drug-drug interaction using joint deep convolutional transform learning and decision forest fusion framework

Paper by Pooja Gupta, Angshul Majumdar, Emilie Chouzenoux, Giovanni Chierchia was published in the Expert Systems with Applications journal, 2023.

In this paper, the authors propose a Siamese-like architecture with two processing channels' networks based on deep convolutional transform learning. Common fused representations as well as channel-wise representations are learnt, in addition with the transform across them.

New Research Program

M.Tech. (Research) in CSE

M.Tech. (Research) is a high-value two-years' masters program focusing on nurturing talent for research-based quality employability. The core emphasis is on research from day one with a limited amount of coursework to prepare a student to develop adequate in-depth understanding of a foundational topic of today's computing technology. The aim of the program is to attract the best talent from the pool of undergraduate students available for admission to a Masters program in the country in an academic year and train them to gain skills in cutting-edge research work in computer science.

Key Highlights of the program

- 👉 Globally Coveted
- 👉 High-value Scholarships
- 👉 Lower Fees
- 👉 Research Focused
- 👉 Quality Employability
- 👉 Research Incentives



Collaborations

All India Institute of Medical Sciences



IIIT-Delhi has signed a Memorandum of Understanding with All India Institute of Medical Sciences to jointly address the challenges facing India's healthcare sector through digital health innovations. The MoU outlines the commitment of both institutions to collaborate on various aspects of digital health, including Artificial Intelligence (AI), Machine Learning (ML), and Computational Genomics for advancing clinical medicine, public health, and biomedical research.

Data.org

With the generous funding of over INR 18.7 crores (2.3 million USD) from Wellcome, data.org launched the India Data Capacity Accelerator and announced the selection of three premier universities in India. In partnership with universities and the Abdul Latif Jameel Poverty Action Lab (J-PAL) South Asia, the India Accelerator will support the ambitious work of equipping emerging professionals with the interdisciplinary data skills needed to address challenges at the intersection of climate and health.

Indraprastha Institute of Information Technology Delhi (IIIT-Delhi) will provide both technical and non-technical professionals with the hybrid program Post-Graduate Diploma in Data Science in Health and Climate Change for Social Impact.



Max Healthcare Institute Limited



IIIT-Delhi has signed a Memorandum of Understanding with Max Healthcare Institute Limited, a leading healthcare provider in India, for a strategic collaboration to advance healthcare research and education in India.

The partnership aims to leverage the strengths of both organizations to promote and conduct high-quality research, develop cutting-edge healthcare solutions, and design and deliver capability and capacity-building programs for healthcare professionals.

The healthcare industry in India is ripe for disruption, and with rapid advancements in the fields of AI-enabled analytics, genomics and computational biology, such a collaboration could not be more suitably timed. This collaboration will focus on joint research activities and academic exchanges. IIIT-Delhi will bring its expertise in data science, machine learning, and artificial intelligence to this partnership and help develop innovative solutions that can augment the depth and breadth of healthcare services while reducing costs. Additionally, IIIT-Delhi will also focus on enhancing the training of healthcare professionals, and promoting research in the field of healthcare technology in order to make a lasting impact in the healthcare space.

Funded Projects



Classical and Quantum Error Correcting Codes and Mathematics over Finite Fields for Smart Telecommunications

Recurrence -independent inference of rare and non-coding functional mutations in cancer



Spectral element solvers for stationary and non-stationary Stokes equations

Cross modal object recognition for visual surveillance



RES-ISTRAC 2022-002: Multisensor data fusion and orbit determination with nonlinear estimation for space debris RADAR

Design and Development of a Sustainable Video Streaming Framework over low and Very Low Bandwidth Network



AI - based Methods for Driving and Traffic Analysis on Indian Highways using Dashcam Videos

AI-driven tracking of hallmarks of aging mechanisms during chronological aging



Developing a work-flow for a machine learning based virtual screening



Understanding Spectral - Temporal Feature Intergration in Acoustic Modelling

Developing a Scalable, ABDM Compliant Antimicrobial Resistance Traker



Strain-specific metagenomics to investigate assembly, resilience and transmission of the gut microbiome and enable rational design of microbe-based therapeutics for the Indian population.

Bayesian approaches for federated incremental learning



Semiconductor Research Corporation



Developing a Robust Timing Verification and Signoff Framework Using Machine Learning

Two, TIH-IoT Chanakya Faculty Fellowship 2022-23



Capacity Building in Robotics & Autonomous Systems in India/ IRAS-HUB

Strengthening Managerial Workflows with Data Driven Decision Support in the Aam Aadmi Mohalla Clinic Model in Delhi



Research in News

Healthworld.com

AIIMS and IIIT-Delhi sign MoU to advance digital health technologies

The collaboration aims at improving patient care, outcomes, and healthcare delivery through the development of innovative technologies. The two institutions will also engage in joint research and training, the exchange of faculty and students, and the organisation of workshops and seminars to promote collaboration in the field of digital health.

New Delhi: All India Institute of Medical Sciences (AIIMS) and Indraprastha Institute of Information Technology (IIIT-Delhi) have signed a Memorandum of Understanding (MoU) to work on various aspects of digital health areas jointly. Under the MoU, both institutions will work together in areas such as artificial intelligence (AI), machine learning (ML), and computational genomics for advancing clinical medicine, public health, and biomedical research.

The collaboration aims at improving patient care, outcomes, and healthcare delivery through the development of innovative technologies. The two institutions will also engage in joint research and training, the exchange of faculty and students, and the organisation of workshops and seminars to promote collaboration in the field of digital health.

FINANCIAL EXPRESS

IIIT Delhi hosts RISE 2023; Empowering innovators, igniting ideas, fostering collaboration

The conference served as a valuable platform for researchers, practitioners, and students to engage in idea sharing, present their work, and establish connections with fellow professionals.

IIIT Delhi hosts RISE 2023. Empowering innovators, igniting ideas, fostering collaboration.

Indraprastha Institute of Information Technology Delhi (IIIT Delhi) a technical education institution has organised the Research Innovation and Incubation Showcase (RISE 2023). Recently, the conference served as a valuable platform

Healthworld.com

IIIT-Delhi develop unCTC, a deep dictionary learning to detect circulating tumor cells in the bloodstream

There are various techniques that detect CTCs on the basis of markers. But a larger set of CTCs may otherwise be missed due to variable or no expression of protein markers. For the analysis of these data, unsupervised clustering is crucial. unCTC, an algorithm for unsupervised clustering based on deep dictionary learning, developed can identify and characterize CTCs from single-cell transcriptomic data. When compared to current CTC capture technologies, it's like casting a wider net to capture circulating tumor cells.

New Delhi: Researchers at the IIIT-Delhi in collaboration with Namaligang's group at Fluidigm Corporation, United States have come up with an innovation unCTC, a deep-dictionary learning framework for unbiased identification of circulating tumor cells (CTCs) in the bloodstream.

The Indian Express

At IIIT-Delhi, Education Minister Atishi seeks suggestions from youngsters to promote entrepreneurship

Atishi underscored that the Delhi AAP government led by Arvind Kejriwal is committed to promoting entrepreneurship and innovation in higher education.

Education Minister Atishi visited the Indraprastha Institute of Information Technology (IIIT-Delhi) on Monday to interact with budding entrepreneurs at the institute's incubation centre. During her visit, she received sought suggestions from youngsters to promote entrepreneurship in Delhi's higher education institutions.

Interacting with the students, Atishi said, "In today's rapidly-changing world, entrepreneurship has become a critical skill that students must possess. We must create an ecosystem that nurtures young entrepreneurs and provides them with the necessary resources and support to turn their ideas into successful ventures."

TIMES NOW

IIIT Delhi To Conduct Annual Research Innovation And Incubation Showcase on May 11

IIIT Delhi invites everyone to its annual Research Innovation And Incubation Showcase, RISE 2023. The event is open for General Public, Students, researchers, academicians, and industry professionals. Here is all you need to know about it.

Authorised by: The Education Desk | Updated May 2, 2023 | 08:33 PM IST

IIIT Delhi To Conduct Annual Research Innovation And Incubation Showcase on May 11

Indraprastha Institute of Information Technology (IIIT-Delhi) will be organising this year's Research Innovation and Incubation Showcase, RISE 2023 on May 11, 2023. In this year's discussion, panel discussions and research poster presentations will be done.

RISE 2023: Presentation On These Themes

1. Research Opportunities in EV Design
2. Challenges in AI-Driven World
3. Enabling the Future with Industry 4.0
4. Rethinking Communication in 2030
5. Routes to Monitor Research
6. Traits of a Good Employee
7. Challenges after IIIT-Delhi
8. Entrepreneurship - Its Future& Impact on the World

At IIIT-Delhi, we strive to encourage such research which contributes to the development of the society and RISE is one such event that will possess some very

Hindustan Times

IIIT Delhi launches Master of Technology (Research) in Computer Science

The 2-year program is designed to nurture students at the pre-doctorate level for solving complex research problems in computer science and engineering relevant for industry and society; the institute said in a press statement.

IIIT Delhi launches Master of Technology (Research) in Computer Science (M.Tech)

The Department of Computer Science and Engineering (CSE) at IIIT-Delhi has launched a new programme - Master of Technology (Research) - for which GATE qualified candidates can apply.

आईआईआईटी से अनुसंधान में मास्टर्स कर सकते हैं छात्र

नई दिल्ली, प्रमुख संवाददाता। इंद्रप्रस्थ इंस्टीट्यूट ऑफ इंफार्मेशन टेक्नोलॉजी (आईआईआईटी) दिल्ली से अब अनुसंधान में भी मास्टर्स कर सकते हैं। इसके तहत इंस्टीट्यूट के कंप्यूटर साइंस और इंजीनियरिंग विभाग ने मास्टर ऑफ टेक्नोलॉजी प्रोग्राम को शुरूआत की है।

इस प्रोग्राम को प्री-डॉक्टरेट स्तर पर छात्रों को तैयार करने के लिए डिज़ाइन किया गया है। दो वर्षीय इस पाठ्यक्रम में पहले साल शुल्क लगेगा, जबकि दूसरे साल कोई शुल्क नहीं लगेगा। विद्यार्थी को हर माह 21 हजार की छात्रवृत्ति, लैपटॉप के लिए 50 हजार और हर साल अतिरिक्त आकस्मिक जरूरतों के लिए 10,000 रुपये देने का भी प्रावधान है।

जागरण सिटी

आइआईआईटी दिल्ली में लोगों के अनुकूल तकनीक कर रहे विकसित

हर साल दिल्ली दिल्ली : इंद्रप्रस्थ इंस्टीट्यूट ऑफ इन्फार्मेशन टेक्नोलॉजी दिल्ली (आइआईआईटी-दिल्ली) में बहुमंजिलार को टेक डिविजन रिसर्च इन्वैलन एंड इन्क्यूबेशन सेन्टर (रिस 2023) का आयोजन किया गया। कार्यक्रम में देश-विदेश से अकादमिक, उद्योग एवं तमाम सरकारी संस्थानों से 600 से अधिक प्रतिनिधियों ने हिस्सा लिया। इस दौरान विभिन्न इंजीनियरिंग, आर्टिफिशियल इंटेलिजेंस (एआई), एजि कम्प्यूटेशन, ईवी डिज़ाइन जैसे विषयों पर फैलत चर्चा, प्रोजेक्ट टेमांटेरेन एवं पोस्टर सत्रों का आयोजन किया गया, वहीं टेक्नोलॉजी ट्रांसफर के मटेनल स्ट्रटज टु मोनेटाइज रिसर्च, इंटरप्रेन्योरियल एड्स फोर्स एंड इंपैक्ट आन द वर्ल्ड विषयों पर विशेष सत्र का आयोजन किया गया। आधुनिक कंप्यूटर टूलकेज से लेकर रोबोटिक्स एडवेंस एवं

उपभिता व रिसर्च के मोनेटाइजेशन पर भी आयोजित किए गए सत्र आइआईआईटी दिल्ली के निदेशक डी. रंजन बोस ने कहा कि आइआईआईटी दिल्ली में रिसर्च से लोगों के अनुकूल तकनीकों को विकसित किया जा रहा है, जो हमारे उद्योगों के जीवन पर सकारात्मक प्रभाव डालेंगे। हमने उद्योग और रिसर्च के मोनेटाइजेशन पर भी सत्र आयोजित किए। इससे प्रतिभागियों लोगों को अपने अनुसंधान कर्षों को प्रस्तुत करने के बारे में जानने का मौक़ा मिला। इस आयोजन ने प्रतिभागियों को ऐसा मंच उपलब्ध कराया, जहां उन्हें एक दूसरे से सीखने, नेटवर्किंग व सहोद्योगिता की और से बेहतर फ़ायदे के निर्माण के अवसर मिल सके।

एआई के नैतिक एवं सामाजिक प्रभाव जैसे विषयों पर चर्चा की गई। आइआईआईटी दिल्ली में विकसित तकनीकों पर 80 से अधिक प्रोजेक्ट टेमां भी दिए गए।

एआई का प्रयोग कर बनाए उपकरण

नई दिल्ली, प्रमुख संवाददाता। इंद्रप्रस्थ इंस्टीट्यूट ऑफ इन्फार्मेशन टेक्नोलॉजी दिल्ली (आईआईआईटी-दिल्ली) ने नैचुरल लैंग्वेज प्रोसेसिंग के क्षेत्र में हो रहे काम का अग्रणी संस्थापक के रूप में अपने योगदान को प्रदर्शित करने के लिए एक प्रमुख विज्ञान सत्र के प्रतिष्ठान पर एक सत्र का आयोजन किया।

रिसर्च के लिए विशेष दिवस

संस्थापक के रूप में अपने योगदान को प्रदर्शित करने के लिए एक प्रमुख विज्ञान सत्र के प्रतिष्ठान पर एक सत्र का आयोजन किया।

आम की सुख

आईआईआईटी दिल्ली के क्षेत्र में नैचुरल लैंग्वेज प्रोसेसिंग के क्षेत्र में अपने योगदान को प्रदर्शित करने के लिए एक प्रमुख विज्ञान सत्र के प्रतिष्ठान पर एक सत्र का आयोजन किया।

बिना टाइमर की गति

आईआईआईटी दिल्ली के क्षेत्र में नैचुरल लैंग्वेज प्रोसेसिंग के क्षेत्र में अपने योगदान को प्रदर्शित करने के लिए एक प्रमुख विज्ञान सत्र के प्रतिष्ठान पर एक सत्र का आयोजन किया।