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अनुसंधान

IIITD RESEARCH NEWSLETTER

GUIDING THE WAY: PIONEERING RESEARCH AT IIIT-DELHI

Unveiling the Latest Insights into Research @ IIIT-Delhi

Welcome to the latest release of "Research Insights," the newsletter that unveils the cutting-edge research endeavors at IIIT-Delhi. As a pioneering research institution, our commitment lies in pushing the boundaries of human knowledge and nurturing a dynamic culture of innovation. In this edition, we present a comprehensive overview of the diverse and impactful research being conducted within our institution, shedding light on its profound influence on society.

This newsletter delves deep into our revolutionary research projects, spotlighting the exceptional work spanning a spectrum of disciplines. Stay informed about the thrilling conferences, symposia, and workshops that unite esteemed scholars and experts, fostering idea exchange and collaborative pursuits.

We trust that this edition of "Anusandhan" will spark your curiosity, kindle your desire to engage with our researchers, and demonstrate the transformative power of research emanating from IIIT-Delhi. We extend an invitation to explore the captivating topics featured in this newsletter and to join us in our relentless pursuit of knowledge and innovation.

MORE RESEARCH NEWS INSIDE

-Designed and Developed by Office of Dean Communications

Research in Focus

AI-Powered Culinary Revolution: IIIT-Delhi's Innovative App Set to Transform Cooking and Nutrition

Prof. Ganesh Bagler
Computational Biology
IIIT-Delhi

As a teenager, Ganesh Bagler aspired to be an astronomer. Trained in physics, computer science, and computational biology, he has had an adventurous journey from astronomy to gastronomy. Prof. Bagler is known for the pioneering research in 'Computational Gastronomy.' By building keystone data repositories, algorithms, and applications, he has established the foundations of this emerging data science that blends food with artificial intelligence. Innovative research from his lab has contributed to this niche dealing with food, flavours, nutrition, health, and sustainability. Prof. Bagler has an audacious dream of transforming the global food landscape by making food computable. Check out the below links for more information.

In a remarkable leap forward towards revolutionising culinary practices and bolstering nutritional awareness, a team of researchers at the Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi), has unveiled a groundbreaking application aptly named "Making Food Computable." This pioneering app harnesses the power of Artificial Intelligence (AI) to streamline the process of preparing a wide spectrum of delectable dishes. Beyond simplifying cooking tasks, it possesses the remarkable capability to scrutinise the nutritional constituents within scanned vegetables.

The app boasts a rich array of features meticulously crafted by the dedicated research team. For instance, in the context of individuals facing health challenges and prescribed specific dietary regimens by medical professionals, the app serves as a discerning guide. It can ascertain whether a meal aligns with the doctor's dietary recommendations or reveals any deviations. Furthermore, the application extends its utility by offering comprehensive insights into the nutritional profile of meals. Utilising the app is a seamless process. Users need only upload images of their meals, and the AI algorithms within the app promptly assess the meal's quality. The app can cater to individuals who wish to recreate foreign dishes in an Indian context, complete with locally available spices and ingredients, by providing them with the entire recipe.

From a health perspective, this innovative app plays a pivotal role in assisting patients in adhering to their prescribed dietary guidelines. Additionally, it empowers individuals seeking to manage their weight by offering precise information on the fat content present in various foods. In essence, IIIT-Delhi's visionary researchers are introducing an array of innovative technologies with the potential to profoundly impact people's lives. Cooking, beyond its role as a fundamental aspect of nutrition and health, embodies an art form deeply intertwined with our cultural identity. The process of creatively amalgamating and transforming raw ingredients into delightful dishes serves as a genuine expression of creativity.

However, the evolving landscape of data availability and the advent of computational methodologies are undeniably altering our outlook on gastronomy. This paradigm shift is exemplified in the emerging field of Computational Gastronomy, where data-driven approaches are employed to explore culinary inquiries, culminating in a structured synthesis and comprehensive data analysis. A prominent illustration of this transformative approach is embodied by the pioneering work conducted at https://cosylab.iiitd.edu.in.

Computational Gastronomy delves into the roots of culinary practices, seeking answers through meticulous data analysis. The endeavour to make food computable holds the potential for a wave of data-driven innovations that are poised to reshape the global food landscape. These innovations carry the promise of enhancing public health, improving nutrition, and contributing to the realisation of a more sustainable future.

Focused Events

Sam Altman's Visit to IIIT Delhi:
Fireside Chat, Developers Roundtable

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Glimpse of other events

On the 8th of June, a special guest graced the premises of IIIT-Delhi, and it was none other than Sam Altman, the CEO of OpenAI. His visit was nothing short of extraordinary, leaving an indelible mark on the institute and all those who had the privilege of engaging with him.

Meeting the Leaders
During his visit, Sam Altman had the opportunity to meet two prominent figures at IIIT-Delhi. He sat down with Prof. Ranjan Bose, the Director of the institute, and Mr. Kiran Karnik, the Chairman of the Board of Governors at IIIT-Delhi. These interactions were undoubtedly insightful and added to the significance of the occasion.

Connecting with the Developers
One of the highlights of Sam Altman's visit was his interaction with over 50 talented developers who were specially invited from various corners of the country. For these aspiring developers, it was a once-in-a-lifetime opportunity to engage with the visionary CEO himself. The exchange of ideas and insights during this developers' roundtable was a testament to the power of collaboration and innovation in the field of AI.

The Fireside Chat: An Insightful Exchange
The pinnacle of Sam Altman's visit was the insightful fireside chat that he hosted, which drew an audience of more than 2000 guests from across the nation. The chat served as a platform for deep discussions on the far-reaching influence of AI and its implications for society. Altman's perspectives on the integration of AI into government services and India's role in shaping global AI regulations resonated deeply with the audience.

Looking Ahead
Sam Altman's visit was a testament to the institute's commitment to fostering innovation and knowledge exchange. It served as a reminder that when visionaries like Altman converge with the academic community, the possibilities for transformative change are boundless.

Other Research Events

- **Summer Research Workshop**
- **Signal Processing Cup at ICASSP, the flagship conference of IEEE Signal Processing Society**
- **5G cellular systems workshop**
- **Summer School on Digital System Design**
- **IIIT-Delhi's annual technical fest -Esya**

Faculty in Focus

RICHA GUPTA

Dr. Richa Gupta completed Ph.D. from IIT Delhi in 2020. She holds a post-graduate degree in Industrial Design (M.Des.) from IDC, IIT Bombay (2013) and completed B.Tech. in Mechanical Engineering from IIIT Jabalpur (2011). She has done collaborative research at the School of Informatics and Computing, IUPU Indianapolis, USA (2017-18) and TU Darmstadt, Germany (2012). She has also worked as Project Scientist at AssisTech Labs, IIT Delhi where she contributed in design and development of several award winning translational research projects, namely SmartCane Device, DotBook (Braille Laptop for Blind), TacRead, OnBoard Bus Identification System, Accessible Graphics Design, and Multi-Modal Braille Learning Device. She is recipient of several prestigious fellowships namely, Stanford Ignite Global Innovation Fellowship (2015), Visvesvaraya PhD Fellowship (2015), JENESYS Fellowship

Research Interests

- Perceptual foundations of Design
- Inclusive Design and Accessibility, Metaverse, HCI
- Interaction Design, Educational Technologies

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GAURAV AHUJA

Gaurav Ahuja graduated summa cum laude from the University of Cologne, Germany with Ph.D. in Natural Sciences. He is a molecular biologist by training and possesses a vast experience in functional genomics, especially in dissecting complex biological mechanisms using genome-editing and next generation sequencing-based techniques. After the completion of his Ph.D. degree, he worked as a Post Doctoral Fellow at several renowned institutes, including Center for Molecular Medicine Cologne, Max Planck Institute for Ageing and Lee Kong Chian School of Medicine, Singapore. During this period he worked on multiple model systems, including human pluripotent stem cells, zebrafish, mice and killifish. He has published 14 research articles in peer-reviewed International journals (~250 citations). In addition to this, he also reviewed articles submitted to Nature Publishing Group (Cell Death & Diseases and Scientific Reports). Recently, Dr. Ahuja was shortlisted for the prestigious INSPIRE Faculty Fellowship.

Research Interests

- Identification
- Deorphanization and characterization of ectopically expressed GPCRS

Inauguration of: Medical Cobotics Centre

India's first 'Medical Cobotics Centre' at IIIT-Delhi to boost innovation in health, Collaborative effort of iHub Anubhuti-IIITD Foundation (Technology Innovation Hub of IIIT-Delhi) and iHub Foundation for Cobotics (IHFC, Technology Innovation Hub of IIT Delhi)

The Medical Cobotics Centre (MCC) is funded by the Department of Science and Technology (DST), the Government of India, to be operated by iHub Anubhuti and IHFC under the NMICPS mission.

The MCC is aimed at being India's first state-of-the-art technology-enabled medical simulation and training facility for doctors, paramedics, technicians, engineers, biomedical researchers, and entrepreneurs. The Centre is also equipped to offer hands-on simulation training to the medical fraternity across the country. The training programmes, ranging from basic to advanced, will be designed in consultation with leading doctors and experts, mainly drawn from the All India Institute of Medical Sciences (AIIMS). The Centre is also aimed at having cutting-edge technologies that will enable advanced medical research and development in the areas of healthcare robotics and digital healthcare.

The Centre will also act as a test bed for many young start-ups in the medical field that are developing innovations in medical technology in digital medical healthcare and healthcare using AR/VR, AI, cobotics, robotics, cognitive sciences, and such.The MCC launched its first Call for Proposals for young start-ups, with funding up to Rs 1 crore available in digital healthcare and medical healthcare using the above application areas.

Facilities at MCC

High Fidelity Simulator–Human Patient Simulator (HPS) for educating students/professionals to practice via attending courses of similar domain to deal with emergency situation in medical science. Students/Professionals can see /test /learn and verify the result of their treatments for better experience.

Innovation and Research Facility wherein doctors and engineers are to work together in medical science to develop new technologies and devices which will end up benefitting patients and doctors for better advancement in medical system. MCC was set up with the idea is to strengthen the medical ecosystem which is to benefit for the greater good for human kind in every way.

Incubation Center for Startups to extend facilities necessary to develop and test new prototypes/Models/Apps/Technologies which can finally be introduced to the medical industry, academia, other medical and industry partners for mass production.

A Med Device Test Center for testing new industrial products introduced by companies and their acceptance, durability, efficiency for their performance and desired results.

A Display Center to show use case scenarios conceptualized by students and researchers.

Simulation of real world scenarios in case of trauma and ACLT trainings

Collaborations

Université Côte d'Azur, France

IIIT-Delhi collaborated with Université Côte d'Azur, France to promote joint research and innovation projects, develop joint degree programs, and initiate student and faculty exchanges.

The Memorandum of Understanding was signed in a ceremony held at IIIT-Delhi campus in the presence of delegates from both IIIT-Delhi and Université Côte d'Azur.

Delhi Metro Rail Corporation

IIIT-Delhi has signed a Memorandum of Understanding with the Delhi Metro Rail Corporation through its Centre for Sustainable Mobility (CSM) to enhance the passenger experience and promote technological advancements.

The event was graced by VIKAS KUMAR, Managing Director, DMRC while, the signing of the MOU and the launch of the Dynamic Advertisement display was done in presence of Dr Dr. Amit Kumar Jain, Ph.D, Director Operation & Services, DMRC Ltd, Dr. Pushpendra Singh, Dean IRD, IIIT-Delhi and Dr. Pravesh Biyani, Head, CSM, IIIT-Delhi.

Scytale Alpha

IIIT-Delhi signed a Memorandum of Understanding with Scytale Alpha enabling collaborative research in Quantum Technologies and the Scytale Fellowship. The fellowship, open to the undergraduate and masters students, will be launched from the upcoming semester.

Ministry of Rural Development, GoI,

IIIT-Delhi has signed an agreement with Ministry of Rural Development, Government of India to carry out research, design and development through deployment and use of technologies in rural development sector. The agreement was signed in the presence of Sh. Shailesh Kumar Singh, IAS, Secretary (Rural Development), Dr. Ashish Kumar Goel, Additional Secretary (Rural Development) and Prof. Ranjan Bose, Director, IIIT Delhi.

Funded Projects

SERB INDIA

RNA velocity independent direction resolved trajectory inference from scRNA-seq data

Carbon footprint optimizer for data and computational science workflow

Shell

इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
सत्यमेव जयते

Quantum Key Distrubtion based Ultra- Secure and Reliable optical Networks using shared fiber toplogy

Purse 2023 Program

विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF SCIENCE & TECHNOLOGY

Infosys CENTRE FOR ARTIFICIAL INTELLIGENCE

Improve Texture and Shape Bias in OCR

Efficient Deep Learning for Green and Sustainable AI

Infosys CENTRE FOR ARTIFICIAL INTELLIGENCE

Infosys CENTRE FOR ARTIFICIAL INTELLIGENCE

AI for Space Situational Awareness

Community AI platform for cancer research

Infosys CENTRE FOR ARTIFICIAL INTELLIGENCE

Infosys CENTRE FOR ARTIFICIAL INTELLIGENCE

Autonomous Urban Mobility

Radar enhanced rapid beam alignment for milimeter wave vehicular communications

(AOC)Advanced Optical Communication (C-DOT)

A Real Time rendering system for interactive placement of lights

CONSORTIUM ON CELIAC DISEASE

Scalable Federated Learning

Emotional Modulation of Visual Distractor-Filtering Brain Structure and Behavioral correlates of Anxiety

Fellowships and Consultancy

- MSR Travel Grant(s) - ***Microsoft***
- Asian India Research & Training Fellowship - ***FICCI***
- NBHM Travel Grant Support - ***Department of Atomic Energy***
- SURF - ***IIIT-Delhi***
- Research Fellowship - ***ST Microelectronics Pvt. Ltd.***
- Research Consultancy - ***Panacea***
- Winter School - ***Dr. Vishwanath Karad MIT World Peace***
- IEEE ComSoc Society Delhi Chapter - ***IEEE***
- Conference Suppor - ***NBHM***
- Research Consultancy - ***AISS***
- Research Consultancy - ***Nirmal Hriday Educational Society***

Featured Publications

Character analogues of Cohen-type identities and related Voronoï summation formulas	Banerjee, D., Khurana, K. Advances in Applied Mathematics, 153, art. no. 102601.
Insdel codes from subspace and rank-metric codes	Aggarwal, V., Pratihar, R. Discrete Mathematics, 347(1), art. no. 113675.
Fusing Multimodal Signals on Hyper-complex Space for Extreme Abstractive Text Summarization (TL;DR) of Scientific Contents	Atri, Y.K., Goyal, V., Chakraborty, T. Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, pp. 3724-3736.
Revisiting Hate Speech Benchmarks: From Data Curation to System Deployment	Kulkarni, A., Masud, S., Goyal, V., Chakraborty, T. Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, pp. 4333-4345.
Meta Perturbed Re-Id Defense	Verma, A., Subramanyam, A.V., Jauhar, M.A., Gera, D., Shah, R.R. Proceedings - IEEE International Conference on Multimedia and Expo, 2023-July, pp. 2597-2602.
Long-term Monitoring of Bird Flocks in the Wild	Kshitiz, Shreshtha, S., Mounir, R., Sarkar, S., Parihar, S.M. IJCAI International Joint Conference on Artificial Intelligence, 2023-August, pp. 6344-6352.
Feasibility and acceptability of Saheli, a WhatsApp Chatbot, on COVID-19 vaccination among pregnant and breastfeeding women in rural North India	El Ayadi, A.M., Singh, P., Duggal, M., Vosburg, K.B., Diamond-Smith, N.G. BMJ Innovations, art. no. bmjinnov-2022-001012.
Distribution of values of general Euler totient function	Banerjee, D., Chahal, B., Chaubey, S., Khurana, K. Journal of Mathematical Analysis and Applications, 530(2), art. no. 127660.
Power and Subjectification at the Edge of Social Media Interfaces in the Aftermath of the Jallikattu Protest	Prince, D. Humanities (Switzerland), 12(4), art. no. 82.
A note on the partial sum of Apostol's Möbius function	Banerjee, D., Fujisawa, Y., Minamide, T.M., Tanigawa, Y. Acta Mathematica Hungarica.
Political mud slandering and power dynamics during Indian assembly elections	Masud, S., Charaborty, T. Social Network Analysis and Mining, 13(1), art. no. 108
A Combined Knowledge and Competency (CKC) Model for Computer Science Curricula	Kumar, A.N., Becker, B.A., Pias, M., Epstein, S.L., Anderson, M.D. ACM Inroads, 14(3), pp. 22-29.
Learning Through Interpolative Augmentation of Dynamic Curvature Spaces	Chhabra, P., Neerkaje, A.T., Agarwal, S., Nakov, P., Chava, S. SIGIR 2023 - Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 2108-2112.
H-AES: Towards Automated Essay Scoring for Hindi	Singh, S., Pupneja, A., Mital, S., Gupta, R., Shah, R.R. Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI 2023, 37, pp. 15955-15963.

What Do You MEME? Generating Explanations for Visual Semantic Role Labelling in Memes	Sharma, S., Agarwal, S., Suresh, T., Akhtar, M.S., Chakraborty, T. Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI 2023, 37, pp. 9763-9771.
Mask-Net: Learning Context Aware Invariant Features Using Adversarial Forgetting	Yadav, H., Shah, R.R. Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI 2023, 37, pp. 16374-16375.
Explaining (Sarcastic) Utterances to Enhance Affect Understanding in Multimodal Dialogues	Kumar, S., Mondal, I., Akhtar, M.S., Chakraborty, T. Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI 2023, 37, pp. 12986-12994.
Antipodal two-weight rank metric codes	Pratihar, R., Randrianarisoa, T.H. Designs, Codes, and Cryptography.
Opportunities and Challenges of OIRS-assisted UAV-based FSO Communication Systems	Singh, P., Bany Salameh, H.A., Bohara, V.A., Srivastava, A., Ayyash, M. 2023 International Conference on Intelligent Computing, Communication, Networking and Services, ICCNS 2023, pp. 92-98.
DMPPred: a tool for identification of antigenic regions responsible for inducing type 1 diabetes mellitus	Kumar, N., Patiyal, S., Choudhury, S., Dhall, A., Raghava, G.P.S. Briefings in Bioinformatics, 24(1), art. no. bbac525.
Gramian-based Characterization of Network Vulnerability to Nodal Impulse Inputs	Chanekar, P.V., Kameshwar Poolla, B., Cortes, J. Proceedings of the American Control Conference, 2023-May, pp. 4507-4512
Adaptive Control with Memory for Switched Linear Systems	Patel, P., Roy, S.B., Bhasin, S. Proceedings of the American Control Conference, 2023-May, pp. 3633-3638.
An Optical Intelligent Reflecting Surface-Assisted Underwater Wireless Communication System	Salam, R., Srivastava, A., Bohara, V.A., Ashok, A. IEEE Open Journal of the Communications Society.
Perceiving placental ultrasound image texture evolution during pregnancy with normal and adverse outcome through machine learning prism	Arora, U., Sengupta, D., Kumar, M., Rani, A., Yadav, R. Placenta, 140, pp. 109-116.
CGuard: Scalable and Precise Object Bounds Protection for C	Kedia, P., Purandare, R., Agarwal, U., Rishabh ISSTA 2023 - Proceedings of the 32nd ACM SIGSOFT International Symposium on Software Testing and Analysis, pp. 1307-1318.
2DMAC: A Sustainable and Efficient Medium Access Control Mechanism for Future Wireless NoCs	Rout, S.S., Sinha, M., Deb, S. ACM Journal on Emerging Technologies in Computing Systems, 19(3), art. no. 20.
Decoding the star system: Twitter and its impact on journalism in the global South	Khan, A., Fatimah, M., Dureja, K., Jumle, V. Global Policy.
A Cramer- Rao Lower Bound-based evaluation of Space Surveillance Network data for collision risk assessment	Biswas, S.K., Kumar, V. Proceedings of the International Astronautical Congress, IAC, 2022-September.
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Investigating the link between miR-34a-5p and TLR6 signaling in sepsis-induced ARDS	Khan, M.J., Singh, P., Jha, P., Singh, I.K., Syed, M.A. 3 Biotech, 13(8), art. no. 282.
Microservice-based in-network security framework for FPGA NICs	Hussain, L., Rawat, M., Yadav, N.K., Tammana, P., Shah, R. Proceedings - 23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing Workshops, CCGridW 2023, pp. 328-330.
AggFirstJoin: Optimizing Geo-Distributed Joins using Aggregation-Based Transformations ⋆	Kumar, D., Ahmad, S., Chandra, A., Sitaraman, R.K. Proceedings - 23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing Workshops, CCGridW 2023, pp. 308-310.
Patterns of transcription factor binding and epigenome at promoters allow interpretable predictability of multiple functions of non-coding and coding genes	Chandra, O., Sharma, M., Pandey, N., Kong, S.L., Kumar, V. Computational and Structural Biotechnology Journal, 21, pp. 3590-3603.
A random forest model for predicting exosomal proteins using evolutionary information and motifs	Arora, A., Patiyal, S., Sharma, N., Kaur, D., Raghava, G.P.S. Proteomics.
AggFirstJoin: Optimizing Geo-Distributed Joins using Aggregation-Based Transformations	Kumar, D., Ahmad, S., Chandra, A., Sitaraman, R.K. Proceedings - 23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing, CCGrid 2023, pp. 414-425.
Characterizing and Understanding Software Security Vulnerabilities in Machine Learning Libraries	Harzevili, N.S., Shin, J., Wang, J., Wang, S., Nagappan, N. Proceedings - 2023 IEEE/ACM 20th International Conference on Mining Software Repositories, MSR 2023, pp. 27-38
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MMFV: A Multi-Movement Finger-Video Database for Contactless Fingerprint Recognition	Malhotra, A., Vatsa, M., Singh, R. 2023 11th International Workshop on Biometrics and Forensics, IWBF 2023.
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Spatiotemporal linear stability of viscoelastic subdiffusive channel flows: a fractional calculus framework	Chauhan, T., Bansal, D., Sircar, S. Journal of Engineering Mathematics, 141(1), art. no. 8.
Editorial Introduction to the Special Issue on Biometrics at a Distance in the Deep Learning Era	Marin-Jimenez, M.J., Yu, S., Makihara, Y., Singh, M., De Marsico, M. IEEE Journal on Selected Topics in Signal Processing, 17(3), pp. 539-544.
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EngageMe: Assessing Student Engagement in Online Learning Environment Using Neuropsychological Tests	Yadav, S., Siddiqui, M.N., Shukla, J. Communications in Computer and Information Science, 1831 CCIS, pp. 148-154.
Midgame Attacks and Defense Against Them	Chang, D., Yung, M. Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 13914 LNCS, pp. 471-492.
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Does Geometric Structure in Convolutional Filter Space Provide Filter Redundancy Information?	Thakur, A., Abrol, V., Sharma, P. Proceedings of Machine Learning Research, 197, pp. 111-121.
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On-chip Unsupervised Learning using STDP in a Spiking Neural Network	Gupta, A., Saurabh, S. IEEE Transactions on Nanotechnology.
Generating Tiny Deep Neural Networks for ECG Classification on Micro-Controllers	Mukhopadhyay, S., Dey, S., Ghose, A., Singh, P., Dasgupta, P. 2023 IEEE International Conference on Pervasive Computing and Communications Workshops and other Affiliated Events, PerCom Workshops 2023, pp. 392-397.
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Unsupervised learning framework for region-based damage assessment on xBD, a large satellite imagery	Mittal, P.V., Bafna, R., Mittal, A. Natural Hazards.
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A Union of Data States: Technology and the Promise of Democratic Governance in Post-Pandemic India	Khan, A. Great Transition in india: Issues and Debates, pp. 129-150.
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Orthogonal Multi-Manifold Enriching of Directed Networks	Sawhney, R., Agarwal, S., Neerkaje, A.T., Pathak, K. Proceedings of Machine Learning Research, 151, pp. 6074-6086.
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Improved Feature Fusion by Branched 1-D CNN for Speech Emotion Recognition	Medha, Chhabra, J.K., Kumar, D. Communications in Computer and Information Science, 1794 CCIS, pp. 175-186.
Nonlinear Model Predictive Control Framework for Cooperative Three-Agent Target Defense Game	Manoharan, A., Baliyarasimhuni, S. Journal of Intelligent and Robotic Systems: Theory and Applications, 108(2), art. no. 21
Hmrbase2: a comprehensive database of hormones and their receptors	Kaur, D., Arora, A., Patiyal, S., Raghava, G.P.S. Hormones.
Judging the creative prowess of AI	Chakraborty, T., Masud, S. Nature Machine Intelligence.
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Event-Based Time-To-Contact Estimation with Depth Image Fusion	Gupta, A., Sharma, P., Ghosh, D., Honkote, V., Ghose, D. Lecture Notes in Networks and Systems, 613 LNNS, pp. 65-77.
Multi-Surface Multi-Technique (MUST) Latent Fingerprint Database	Malhotra, A., Vatsa, M., Singh, R., Morris, K.B., Noore, A. IEEE Transactions on Information Forensics and Security.
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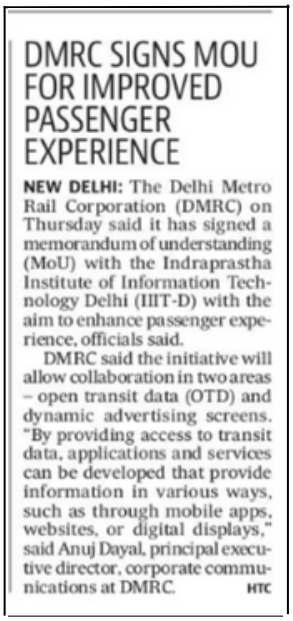
Research in News


INDIA TODAY

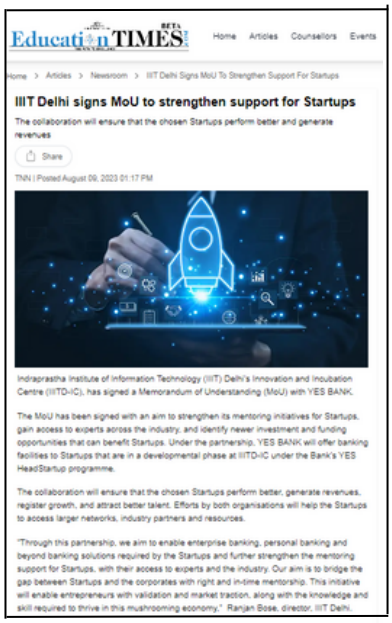
India's first 'Medical Cobotics Centre' at IIIT Delhi to boost innovation in health


DMRC SIGNS MOU FOR IMPROVED PASSENGER EXPERIENCE

NEW DELHI: The Delhi Metro Rail Corporation (DMRC) on Thursday said it has signed a memorandum of understanding (MoU) with the Indraprastha Institute of Information Technology Delhi (IIIT-D) with the aim to enhance passenger experience, officials said.

DMRC said the initiative will allow collaboration in two areas – open transit data (OTD) and dynamic advertising screens. "By providing access to transit data, applications and services can be developed that provide information in various ways, such as through mobile apps, websites, or digital displays," said Anuj Dayal, principal executive director, corporate communications at DMRC. HTC


मेट्रो की तकनीकी मदद करेगी आईआईआईटी-डी


Education TIMES

IIIT Delhi signs MoU to strengthen support for Startups

The collaboration will ensure that the chosen Startups perform better and generate revenues

Indraprastha Institute of Information Technology (IIIT) Delhi's Innovation and Incubation Centre (IIITD-IIC), has signed a Memorandum of Understanding (MoU) with YES BANK.

The MoU has been signed with an aim to strengthen its mentoring initiatives for Startups, gain access to experts across the industry, and identify newer investment and funding opportunities that can benefit Startups. Under the partnership, YES BANK will offer banking facilities to Startups that are in a developmental phase at IIITD-IIC under the Bank's YES HeadStartup programme.

The collaboration will ensure that the chosen Startups perform better, generate revenues, register growth, and attract better talent. Efforts by both organisations will help the Startups to access larger networks, industry partners and resources.

"Through this partnership, we aim to enable enterprise banking, personal banking and beyond banking solutions required by the Startups and further strengthen the mentoring support for Startups, with their access to experts and the industry. Our aim is to bridge the gap between Startups and the corporates with right and in-time mentorship. This initiative will enable entrepreneurs with validation and market traction, along with the knowledge and skill required to thrive in this mushrooming economy," Ranjan Bose, director, IIIT Delhi.


NEWS18

Data Science in Healthcare: How to Build a Career Around it?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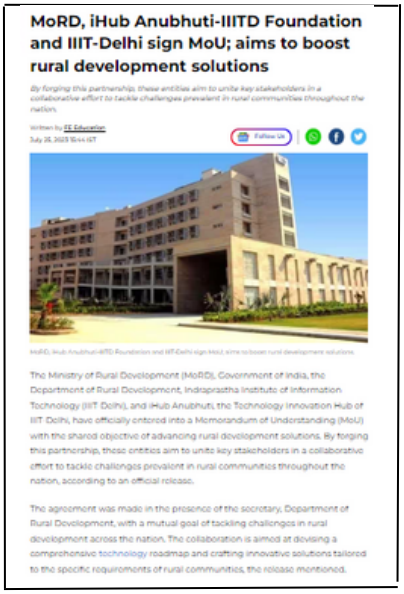
Chandrayaan 3: Delhi के IIIT में एयरोस्पेस और इंजीनियरिंग की पढ़ाई करने वाले बच्चों का उत्साह देखिए


THE TIMES OF INDIA

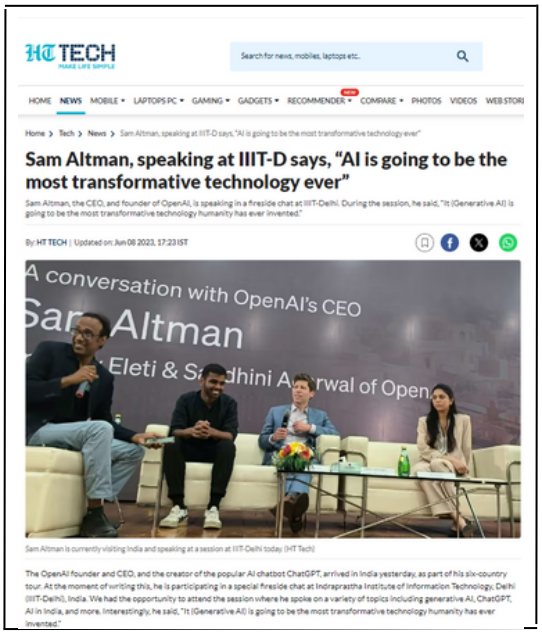
How simulators can help budding does gain skills


Chandrayaan 3: IIIT Delhi के प्रोफेसर ने बताया कि आखिर पिछली बार किस वजह से लैंडिंग सफल नहीं हुई?


MoRD, iHub Anubhuti-IIITD Foundation and IIIT-Delhi sign MoU; aims to boost rural development solutions

The Ministry of Rural Development (MoRD), Government of India, the Department of Rural Development, Indraprastha Institute of Information Technology (IIIT Delhi), and iHub Anubhuti, the Technology Innovation Hub of IIIT Delhi, have officially entered into a Memorandum of Understanding (MoU) with the shared objective of advancing rural development solutions. By forging this partnership, these entities aim to unite key stakeholders in a collaborative effort to tackle challenges prevalent in rural communities throughout the nation, according to an official release.

The agreement was made in the presence of the secretary, Department of Rural Development, with a mutual goal of tackling challenges in rural development across the nation. The collaboration is aimed at devising a comprehensive technology roadmap and crafting innovative solutions tailored to the specific requirements of rural communities, the release mentioned.


HT TECH

Sam Altman, speaking at IIIT-D says, "AI is going to be the most transformative technology ever"

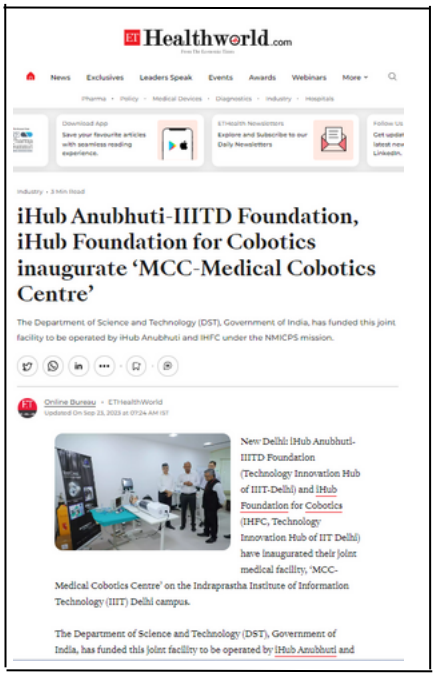
Sam Altman, the CEO, and founder of OpenAI, is speaking in a fireside chat at IIIT-Delhi. During the session, he said, "It (Generative AI) is going to be the most transformative technology humanity has ever invented."

By HT TECH | Updated on: Jun 08 2023, 17:23 IST

A conversation with OpenAI's CEO Sam Altman

Sam Altman is currently visiting India and speaking at a session at IIIT-Delhi today. (HT Tech)

The OpenAI founder and CEO, and the creator of the popular AI chatbot ChatGPT, arrived in India yesterday, as part of his six-country tour. At the moment of writing this, he is participating in a special fireside chat at Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi), India. We had the opportunity to attend the session where he spoke on a variety of topics including generative AI, ChatGPT, AI in India, and more. Interestingly, he said, "It (Generative AI) is going to be the most transformative technology humanity has ever invented."


ET Healthworld.com

iHub Anubhuti-IIITD Foundation, iHub Foundation for Cobotics inaugurate 'MCC-Medical Cobotics Centre'

The Department of Science and Technology (DST), Government of India, has funded this joint facility to be operated by iHub Anubhuti and IHFC under the NMICPS mission.

Online Bureau • ET HealthWorld

New Delhi: IHub Anubhuti-IIITD Foundation (Technology Innovation Hub of IIIT-Delhi) and IHub Foundation for Cobotics (IHFC, Technology Innovation Hub of IIT Delhi) have inaugurated their joint medical facility, 'MCC-Medical Cobotics Centre' on the Indraprastha Institute of Information Technology (IIIT) Delhi campus.

The Department of Science and Technology (DST), Government of India, has funded this joint facility to be operated by IHub Anubhuti and