IEEE Advancing Technology for Humanity

गौतम बुद्ध विश्वविद्यालय Gautam Buddha University

Technically Co-Sponsored by IEEE UP SECTION (INDIA)

IEEE International Conference

On

COGNITIVE COMPUTING IN ENGINEERING

COMMUNICATIONS

SCIENCES AND BIOMEDICAL HEALTH INFORMATICS

16-18 January, 2025

OBJECTIVE OF THE CONFERENCE

This conference can be a platform where researchers, scientists, academicians and Industry experts come together to share their opinion, new ideas, frameworks and related innovative technologies in intelligent computing which can solve the problems of complex computing in the in the engineering sciences and healthcare. Above all, a revolutionary contribution in terms of social welfare through science and technology is expected in this conference in the healthcare. The proposed conference will have high impact on IEEE UP Section in terms of recent advances in the field of intelligent computing for the engineering, sciences, healthcare, energy and environment. The scope of conference includes interdisciplinary, emerging and thrust areas focusing on Cognitive computing for solving complex problems in engineering, sciences, healthcare and deeper understanding of current trends in intelligent computation within the domain and in the multi-disciplinary research on evolutionary growth of nation towards solving healthcare issue and provide fast diagnosis and cure to the society where over population is a big challenge to the medical profession. It becomes more important in UP state where majority of population still lacks basic primary facilities of the healthcare. The IEEE UP section will be benefited to promote IEEE awareness, membership enhancement and networking which is the main theme of IEEE. It may be a benchmark conference for the IEEE UP Section. This conference will provide an open forum to the researchers, academicians, healthcare and industry professionals to share and exchange their ideas which may be helpful to society at large scale in terms of healthcare solutions.

ABOUT GBU

The Gautam Buddha University (GBU), established by U.P. Govt. by Act No. 9 of 2002, spread in 511 acres lush green campus at Gr. Noida encourages multidimensional growth through its education, training and research. The University envisions becoming a world class centre for excellence in education and research. The academic programme, designed in line with the best universities around the world, combine the best practices of pedagogy and class room teaching, complemented by practical training and experiential learning. In order to promote value-based education, research and training, the University has established eight schools. The school of Engineering offers graduate, post graduate and doctoral Programmes of Engineering including interdisciplinary domains such as Integrated B.Tech. + M.Tech./MBA, B.Tech., M. Tech, B.Arch., M. Arch.., M. Planning and PhD in various disciplines of Engineering & Technology. The university has most of the approved courses by AICTE, approved by UGC under section 12-B and accredited by NAAC. The School of Engineering has state of the art classrooms and laboratories equipped with computing and multimedia facilities. The school combines the best practices of pedagogy and class room teaching, complemented by practical training and experiential learning.

CONFERENCE HIGHLIGHTS SCOPE AND OUTCOME

- This Conference is a distinctive effort to explore, enhance and empower multi-disciplinary and multi-institutional research based on AI/ML in Contemporary Biomedical & Healthcare informatics
- This conference will provide recent developments in the area of AI and its applications in the emerging fields of Engineering & healthcare which will focuses on identifying challenges and solutions through a multidisciplinary approach, shaping the path for new research dimensions.
- The convergence of AI and ML, Big data, data analysis, and high-performance computing provides the capability to solve complex problems leveraging these platforms to create pervasive healthcare systems is the major task of this conference.
- A neoteric and latest developments in the area of cognitive computing in engineering, sciences, and healthcare domains.
- Focuses on identifying challenges and solutions through an integrated approach, shaping the path for new research dimensions.

CONFERENCE HIGHLIGHTS SCOPE AND OUTCOME

- Cognitive computing techniques for solving various problems in the field of engineering, sciences and healthcare.
- An advanced procedure to address and enhance available methods.
- A deeper understanding of current trends in cognitive computing techniques within the domain of engineering, sciences and healthcare.
- A neoteric and latest developments in the area of cognitive computing in engineering, sciences, and healthcare domains.
- Future prospect of cognitive computing in engineering and healthcare through best practices.
- Intelligent systems based on knowledge / Data engineering.
- Finally, This conference will provide an open forum to the researchers, academicians, healthcare and industry professionals to share and exchange their ideas which may be helpful to society at large scale in terms of healthcare solutions.

INSTRUCTION TO AUTHORS

- Full length papers of original research work are invited in IEEE template to be submitted through online EasyChair Conference Management System not exceeding to 06 pages.
- Manuscripts in **IC3BSEC-2025** will be accepted across the globe from researchers, academia teaching faculty, Industry persons, students and research scholars, Business Entrepreneurs, R& D professionals, health & medical professional etc.
- The link is available on the conference web page for further details- **http://www.gbu.ac.in/conferences**

IMPORTANT DATES

Submission Started	1st August 2024
Last Date for Full Paper Submission	31st October 2024
Acceptance Notification Date	30th November 2024
Last Date for Registration & Camera-Ready Paper	15th December 2024

SPONSORSHIP TIERS

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Back Page Cover on Proceedings	✓	✗	✗	✗	✗	✗
DEAL PRICE	₹ 200K $ 4000	₹ 100K $ 2000	₹ 75K $ 1500	₹ 50K $ 1000	₹ 25K $ 500	- -

CONFERENCE TRACKS

- Track 01 AI & ML in Intelligent, Cognitive, Quantum and Cloud Computing
- Track 02 Advancements in Data Science, Cyber Security, Deep Learning and Data Mining
- Track 03 AI in Biomedical, Biotechnology, Bioinformatics & Healthcare
- Track 04 Technological Advancements in Green Energy Net Zero and Sustainability (GENS)
- Track 05 AI in Nanotechnology, Semiconductor Materials and Integrated Circuits
- Track 06 Cognitive Approach in Soft Computing, Optimization and Modern Mathematical Trends

CONFERENCE TRACKS

- Track 07 AI Driven Solutions for Agriculture, Smart Cities, Environment and Food Processing
- Track 08 Recent Trends in Power Quality, Power Converters, Energy Storage, EVs, Renewable Energy and Microgrids
- Track 09 Computational Intelligence in Signal, Image Processing, Pattern Recognition and Computer Vision
- Track 10 Innovations in IOT, Mechatronics, Robotics, Automation, Instrumentation and Control Systems
- Track 11 Role of AI in Revolutionizing Startups, Entrepreneurial Growth and Leadership Strategies
- Track 12 Next-Gen AI in Communication, Smart Networks, Network Security, Reliability and Safety Engineering

SPECIAL SESSIONS/ TRACKS

- SST 01 Advancement in Communication Systems, Optical Wireless Communications and Microwave Engineering
- SST 02 BioE3 (Biotechnology for Economy, Environment and Employment)
- SST 03 Information Security, Blockchain, Cyber Security and Privacy in the age of Cognitive Computing
- SST 04 Computational Intelligence in Bioinformatics & Drug Discovery
- SST 05 Applications of AI in Food Processing Industry and Technology
- SST 06 Integration of Cognitive Computing in Engineering for Smart Infrastructure and Automation

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SPECIAL SESSIONS/ TRACKS

- SST 07 Cognitive Computing and AI for Next-Generation Healthcare Systems
- SST 08 Intelligent Systems: AI Applications and Security Challenges
- SST 09 Computational Methods & AI for Robotics, Mechatronics, Industrial Automation and CFD
- SST 10 Emerging industrial automation, Industry 5.0, manufacturing, materials, and techniques for Electric Vehicles (EVs)
- SST 11 Privacy, Cyber Security, Protocols, RFID & IoT Security in Computing and Next Generation Networks through AI, ML & DL
- SST 12 Applications of AI, ML, IOT and Data Analytics in Autonomous Systems, Reliability and Safety Engineering

SPECIAL SESSIONS/ TRACKS

- SST 13 Cognitive Computing in Integrated Circuits and Commutation Systems
- SST 14 Cognitive Approaches for Diagnostics and Predictive Analytics in Healthcare & Medicine
- SST 15 Cutting-Edge Technologies for Signal and Image Processing Methods for Pattern Recognition
- SST 16 Recent Trends in Computational Science
- SST 17 Intelligent and Secure Cognitive Communication Systems and Automation
- SST 18 Data Analytics and Cognitive Systems in Engineering and Human Computer Interaction

SPECIAL SESSIONS/ TRACKS

- SST 19 Modern Mathematical Trends with Scientific and Technological Applications
- SST 20 Resilience and Sustainability through Smart Grid Technologies
- SST 21 Power Quality, Power Converters and Smart-Micrograids
- SST 22 Image Registration and its Modern day Applications
- SST 23 Nature Inspired Optimization and Its Applications
- SST 24 AI & Machine Learning application in healthcare for Personalized Disease Prediction and Management

SPECIAL SESSIONS/ TRACKS

- SST 25 Cognitive Computing in Smart Communication Networks and Communication Technologies
- SST 26 Smart Technologies for Infrastructure, Environment, Civil and Weather Predictions
- SST 27 Harnessing AI and IoT: Advancements in Intelligent Systems for Biomedical and Industrial Innovations
- SST 28 Smart Microgrid Systems: Load and RES Forecasting and Emerging Applications
- SST 29 Smart Digital Healthcare Technologies
- SST 30 Optimizing Health Informatics for Resolving Critical Disease States

SPECIAL SESSIONS/ TRACKS

- SST 31 Designing of microbial cell factories through Artificial Intelligence and Machine Learning
- SST 32 IoT and Machine Learning Applications for Sustainable Development
- SST 33 Exploring AI Innovations in Medical Imaging and Diagnostics
- SST 34 Solutions for Smart Cities using Artifical Intelligence and Machinne Learning

IEEE UP SECTION SPECIAL SESSIONS

- 01 IEEE Student Volunteer Meet
- 02 IEEE Women in Engineering (WIE)
- 03 IEEE HAC/SIGHT
- 04 IEEE UP Section GENS

KEYNOTE SPEAKERS

Prof. R. K. Sinha
Vice Chancellor, Gautam Buddha University, Gr. Noida, India

Prof. S. N. Singh
Director, ABV IIITM Gwalior, India

Dr. Vishwas Tripathi
Registrar, GBU Gr. Noida

Prof. Vinod Kumar
Ex-Vice Chancellor JIIT Noida, India

Prof. Ashish Kumar Singh
MNNIT, Allahabad (Ex Chair, IEEE UP Section), India

Prof. Jay Ram Kumar
IIT Kanpur (Ex Chair of IEEE UP Section), India

Prof. Satish K. Singh
IIIT Allahabad (Immediate Past Chair, IEEE UP Section), India

Prof. Yogesh Singh Chauhan
IIT Kanpur (Chair, IEEE UP Section), India

Prof. Mohd. Rihan Alvi
AMU Aligarh (Chair Elect., IEEE UP Section), India

Prof. Vijay. K. Arora
Wilkes University, USA

Prof. Ekram Khan
Dept. of Electronics Engineering, AMU Aligarh, India

Dr. Mohd. Helmy Abd Wahab
Universiti Tun Hussein Onn, Malaysia

Prof. N.P. Padhy
Director, MNIT Jaipur, India

Prof. Moinuddin
Apeejay Stya University, Gurugram (Ex-PVC DTU & Director NITJ), India

Prof. Celia Shahnaz
Chair IEEE Women in Engineering BUET, Bangladesh

KEYNOTE SPEAKERS

Prof. A.Q. Ansari
JMI New Delhi (Chair, IEEE Delhi Section), India

Prof. Prerna Gaur
NSUT, New Delhi (Chair IEEE India Council)

Prof. M.K. Dutta
Director, Amity Centre for AI, Amity University Noida, India

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Cadence Chair Professor of AI and Automation, IIT Delhi, India

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Dept. of Electrical Engineering, IIT Roorkee, India

Dr. Sugam Sharma
Dept. of Computer Science, Iowa State University, USA

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College of Engineering & Science, Victoria University, Australia

Dr. Deepak L. Waikar
Chief Training Advisor, Tacstra Solutions Pte. Ltd. Singapore

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Dept. of Computer Science, Taiba University, Saudi Arabia

Prof. R.S. Anand
Dept. of Electrical Engineering, IIT Roorkee, India

Prof. Aqeel Ashraf
University of Technology, Salalah, Oman

Prof. Thyagrajan T
Pro-Vice Chancellor, VIT Chennai

Prof. S.P. Gupta
Former VC & Dy. Director IIT Roorkee, India

Prof. Atif Iqbal
Qatar University, Qatar

KEYNOTE SPEAKERS

Dr. M. Khalid Khan
Lead Engineer, Alstom, Derby, UK

Dr. Ritu Shandilya
Mount Mercy University, USA

Dr. Ajay Sharma
University of Malta, European Commission, Belgium, Europe

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Post Doctoral Fellow, Westlake University, China

Dr. Farhad Ilahi Bakhsh
NIT Srinagar, India

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Vancouver, British Columbia, Canada

Dr. Mansaf Alam
CSE, JMI New Delhi, India

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King Khalid University, Saudi Arabia

Dr. Mohd Najim
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Dr. Irphan Ali
Global Head Academic Innivec, Vancouver, Canada

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IEEE INTERNATIONAL CONFERENCE

16-18 January, 2025

Organized by

School of Engineering

Gautam Buddha University,
Greater Noida(U.P.), Delhi NCR – 201312 India

www.gbu.ac.in

FOR MORE DETAILS AND ENQUIRIES

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