Welcome to the **International Conference on Recent Advancement in Computer and Engineering Technologies (ICRACE'24)**, scheduled for **December 26-27, 2024**. This year, ICRACE'24 will be held in a hybrid format, with simultaneous sessions hosted at **Bahria University** in **Islamabad** and **Altinbas University** in **Istanbul, Türkiye**. ICRACE'24 provides an exceptional platform for researchers, academicians, and industry experts to present and discuss the latest advancements in computer and engineering technologies.

Participants are invited to attend either in person at one of the two prestigious universities or virtually from anywhere in the world. The program is designed to be comprehensive and engaging, featuring paper presentations, keynote addresses by renowned experts, and interactive sessions that encourage innovation and collaboration. Researchers are encouraged to submit abstracts, which should be between 500 and 800 words and written in English. All accepted papers will be published in the conference's abstract book, ensuring broad visibility for the presented work.

ICRACE'24 covers a wide range of topics, reflecting the diverse and rapidly evolving nature of the field.

1. Communication & Security
2. Artificial Intelligence & Enabling Technologies
3. Digital Systems & Signal Processing
4. Smart Cities and Technological Infrastructure
5. Data Mining/Big Data
6. Machine Learning/Deep Learning

ICRACE'24 is an invaluable opportunity to connect with peers, exchange ideas, and contribute to the ongoing advancement of computer and engineering technologies. With a diverse group of participants from around the world, including researchers, industry professionals, and students, ICRACE'24 will foster a dynamic environment of knowledge sharing and collaboration.

Details of Tracks ICRACE'24 is organized into following tracks:

Track 1: Communication & Security:

- Secure Communication Protocols
- Data Privacy and Protection
- Network Security
- Cybersecurity in Telecommunications
- Blockchain and Decentralized Communication
- Secure Email and Messaging Systems
- Authentication and Access Control
- Threats to Communication Security
- Regulatory and Legal Aspects of Communication Security
- Emerging Trends in Communication Security

Track 2: Artificial Intelligence & Enabling Technologies:

- AI Algorithms and Applications
- Robotics and Autonomous Systems
- Natural Language Processing
- AI in Healthcare
- AI Ethics and Governance
- AI in Cybersecurity
- AI for Predictive Analytics
- Human-Machine Interaction
- AI in Education and Learning
- Future Trends in AI

Track 3: Digital Systems & Signal Processing:

- Digital Signal Processing Techniques
- Image and Video Processing
- Audio and Speech Processing
- Signal Processing for Communications
- Biomedical Signal Processing
- Signal Processing in IoT
- Real-Time Signal Processing
- Advanced Signal Processing Algorithms
- Signal Processing Hardware
- Emerging Technologies in Signal Processing

Track 4: Smart Cities and Technological Infrastructure:

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- IoT for Smart Cities
- Sustainable Urban Infrastructure
- Smart Transportation Systems
- Intelligent Energy Management
- Smart Water Management
- Smart Buildings and Homes
- Public Safety and Security
- Urban Data Analytics
- Smart City Governance
- Future Trends in Smart Cities

Track 5: Data Mining/Big Data:

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- Data Mining Techniques
- Big Data Analytics
- Data Warehousing
- Data Visualization
- Predictive Modeling
- Big Data in Healthcare
- Big Data for Business Intelligence
- Cloud Computing and Big Data
- Data Privacy in Big Data
- Future Trends in Big Data

Track 6: Machine Learning/Deep Learning:

- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning
- Deep Neural Networks
- Natural Language Processing with ML
- Computer Vision with DL
- ML in Cybersecurity
- ML for Predictive Analytics
- Advanced ML Algorithms
- Emerging Trends in Machine Learning and Deep Learning