CONFLUENCE 2024

Department of Computer Science & Engineering, Amity School of Engineering and Technology, Amity University Uttar Pradesh, Noida, organized the 14th International Conference on Cloud Computing, Data Science and Engineering, "Confluence 2024", from 18th-19th January 2024.

The two-day enthralling Conference was organized with an aim to provide a platform to entrepreneurs, academicians and experts associated with modern progress on cloud computing, data science and engineering. The primary goal of this summit was to provide an exciting platform for researchers and developers from academia and industry to exchange information regarding advancements in the practice of Cloud Computing, Data Science and Engineering in today's ubiquitous virtual environment. The range of papers presented ensured an engaging and enlightened discussion spread over a period of two days.

The conference would like to express deep gratitude to Sponsors Indian Council of Agricultural research(ICAR), Defence Research and Development Organisation (DRDO) Academic Partners: IOWA State University, USA, University of Florida, USA, Academic Partners: AWS Academy, Red Hat, Ui Path, Technical Co-sponsor: IEEE UP Section(INDIA), Technical Sponsor: IEEE SIGHT for associating with us and supporting Confluence 2024.

CONFLUENCE-2024 was honoured by the presence of over **70** industry and international guests from 30+ countries across the world. There has been an astonishing response for research paper submissions this year. Over **1347** technical research papers were submitted to CONFLUENCE-2024 from faculty members and Ph.D. scholars of reputed academic institutions both at the national and international levels. Out of which, **240** manuscripts were accepted and **159** registered and presented during the two days of the conference, including papers from foreign universities (China, Peru, South Korea, USA) and papers from Amity Universities, that met stringent requirements of high scientific quality and significance, originality, and priority. During the two-day Conference, various sessions on relevant topics by renowned experts were conducted and Research Papers were presented. All registered and presented papers will be submitted to the IEEE Xplore Digital Library for publication and would be indexed in SCOPUS.

Welcoming the gathering and introducing the theme of the Conference, **Prof. (Dr.) Manoj Kumar Pandey,** Director, Amity School of Engineering & Technology, AUUP & General Chair, Confluence 2024 after which **Prof. (Dr.) Sanjeev Thakur**, HOD CSE, Amity School of Engineering & Technology, AUUP & Conference Chair Confluence 2024 **raised the curtain of CONFLUENCE 2024** wishing all the best for the success and adding "Data is the new oil for the world and that data science is the catalyst for a data driven nation**."**

Lamp Lighting

Addressing the gathering **Prof. (Dr.) Balvinder Shukla,** Vice Chancellor, AUUP & Co Patron, Confluence 2024 said "I don't think there's anyone in this world that hasn't been impacted by technologies, that is why engineers are so important. We as a country need to take a step forward in the advancement of technologies such as cloud computing and data science. Data is the main currency, if you have data, there's a lot you can achieve through it."

Prof. (Dr.) Chandrajit Bajaj, University of Texas, USA was conferred Honorary Professorship and in his acceptance speech said, "It's not us that will achieve and make it high, but it's our children and students who will."

Prof. (Dr.) Dinesh Manocha, University of Maryland, College Park, USA averred, "One question everyone asks in the computer engineering domain is "What is next?". We don't know what the next big thing will be, this is why research and sharing new ideas is very important. The students are who are going to invent the future"

Prof. (Dr.) Chandrajit Bajaj, University of Texas, USA said, "To achieve is not to become the CEO of google or Microsoft. its always to see where your heart leads you. We can always take our own measures of success. And never repeat the same mistake twice."

Prof. (Dr.) Sharath Chandra Guntuku, University of Pennsylvania, USA, stated, "It's good to see what a diverse set of individuals have come here. While we learn here, let's also not forget to have a bit of fun. Best ideas often come when we don't take ourselves too seriously."

Prof. (Dr.) Abhinav Bhatele, University of Maryland, College Park, USA, said "Just like cloud computing and data science we also have AI/ML. We should try to scale applications of AI wherever we can."

Address by Guest of Honor, Prof. (Dr.) Abhinav Bhatele, University of Maryland, College Park, USA

Dr. Atul Chauhan, Chancellor, Amity University, President, Ritnand Balved Education Foundation, CEO, AKC Group of Companies, Patron, Confluence 2024 and **Dr. Ashok K Chauhan**, Founder President, Ritnand Balved Education Foundation, Patron in Chief, Confluence 2024 Graced the gathering with their online presence and said "If I can do it, you can do it too because when you want to have extraordinary success it's very easy, you just need to have strong will and you will be able to do it much better than any of us have." He added on by saying, "Confluence is where two rivers that independently flow, meet at a point."

During the two-day Conference, various sessions on relevant topics by renowned experts were conducted and Research Papers were presented. A Book on Confluence 2024 Proceedings was also released during the Inaugural Session of the Conference.

Through a range of keynote speeches, special sessions like Industry Forum on Leading Technologies and Future Directions for Next Generation Engineering Innovators , HR Conclave and panel discussions, audience witnessed new ways to deal with the challenges faced in areas of Cloud Computing, Data Science and Engineering. The panelists were **Commodore. Nitin Kapoor (Retd.)**, Head-Human Resources, Lumiq, **Dr. I. M. Loya**. Group CTO, Essel Group, **Mr. Rohit Kumar**, Head of R&D, CSC e-Gov, **Mr. Ankur Jain**, CTO, OnGraph Technology, **Mr. Rohit Das**, Partner, Grant Thornton Bharat LLP, **Mr. Saurabh Shukla**, Principal - Business Consulting, Infosys and **Mr. Gautam Duggal**, Director, Global Talent Management & Learning, MasterCard who flamboyantly mediated the session, asking relevant questions to the speakers. The key takeaway and the gist of the whole session in three words was "Learn, Innovate and Evolve"

We are grateful to the plethora of the eminent and distinguished speakers Prof. (Dr.) Suresh Vishwakarma, Senior Engineer University of Trinidad and Tobago, Canada, Prof. (Dr.)

Chanchal Roy, University of Saskatchewan, Canada, Prof. (Dr.) Gautam Srivastva, Brandon University, Canada, Prof. (Dr.) Banani Roy, University of Saskatchewan, Canada, Prof. (Dr.) Hisao Ishibuchi, Southern University of Science and Technology, China, Prof. (Dr.) Mohd Helmy Bin Abd Wahab, University Tun Hussein Onn, Malaysia, Prof. (Dr.) Giancarlo Fortino, University of Calabria, Italy, Prof. (Dr.) Hiroyuki Sato, University of Electro-Communications, Japan, Dr. Sushil Kumar, G B Pant Engineering College, Delhi, India, Dr. Sumit Kumar, Amity University Uttar Pradesh, India, Dr. Vishal Gupta, NSUT East Campus, Delhi, India, Dr. Nitish Kumar, Amity University Uttar Pradesh, India, Dr. Sunita Tiwari, G B Pant DSEU Okhla I Campus, Delhi, India, Dr. Juhi Singh, Amity University Uttar Pradesh, India, Dr. Deepti Kakkar, NIT, Jalandhar, Dr. Sumita Gupta, Amity University Uttar Pradesh, India, Dr. Nikhil Kumar Marriwala, UIET, Kurukshetra University, Kurukshetra, India, Dr. Anshul Tickoo, Amity University Uttar Pradesh, India, Dr. Pradeep Kumar Singh, Department of Computer Science and Engineering, Central University of Jammu, J&K, India, Dr. Sumit Kumar, Amity University Uttar Pradesh, India, Prof. (Dr.) Narayan C. Debnath, Founding Dean School of Computing & Information Technology, Eastern International University, Vietnam, Dr. Nitish Kumar, Amity University Uttar Pradesh, India, Dr. Naveen Agarwal, Panjab University, Principal Investigator- Design Innovation Center, Dr. Misha Kakkar, Amity University Uttar Pradesh, India, Dr. Neelam Duhan, Department of Computer Engineering, J. C. Bose University of Science and Technology, YMCA, Faridabad, India, Dr. Anil Sharma, Amity University Uttar Pradesh, India, Dr. Poonam Tanwar, Professor Dept. Of CSE, MRU, India, Dr. Dolly Sharma, Amity University Uttar Pradesh, India, Dr. Sanjay Kumar Sharma, Computer Science and Engineering Department, University School of Information and Communication Technology, Gautam Buddha University, Greater Noida, Uttar Pradesh, India, Dr. Garima Aggarwal, Mr. Roshan Lal Amity University Uttar Pradesh, Noida, India, Prof. (Dr). Murli M Rao, Director-CSE, Indira Gandhi Open National University, New Delhi, India, Dr. Juhi Singh, Amity University Uttar Pradesh, Noida, India, Dr. Sangeeta, MSIT, Delhi, Dr. Anil Sharma, Amity University Uttar Pradesh, India, Dr. Sushil Kumar, NIT Kurukshetra, Dr. Anshul Tickoo, Amity University Uttar Pradesh, India, Dr. Sitendra, MSIT Delhi, Dr. Sumita Gupta, Amity University Uttar Pradesh, India, Prof. (Dr.) Dinesh Manocha, University of Maryland, College Park, USA, Prof. (Dr.) Kire Jakimoski, American University of Europe, Macedonia, Prof (Dr.) Basanta Joshi, Tribhuvan University, Nepal, Prof. (Dr.) Sharath Chandra Guntuku, University of Pennsylvania, USA, Prof. (Dr.) Olha Kanishcheva, University of Jena, Germany, Prof. (Dr.) Al-Sakib Khan Pathan, United International University, Dhaka, Bangladesh, Prof. (Dr.) Keith Sherringham, PMO Specialist, New South Wales, Australia, Prof. (Dr.) Ahmed M. A. Sayed, Queens Mary University, UK, Prof (Dr.) Chandrajit Bajaj, University of Texas, USA, Prof. (Dr.) Pasquale Coscia, University of Milan, Italy, Prof. (Dr.) Abhinav Bhatele, University of Maryland, College Park, USA, Prof. (Dr.) Bjoern Schuller, University of Augsburg, Germany, (Dr.) Arun K Somani, Senior Associate Dean, IOWA, Prof. (Dr.) Ankit Agrawal, Northwestern University, USA, Ms. Susannah Barnes, Data, Prof. (Dr.) Bhuvan Unhelkar, University of South Florida, Prof. (Dr.) Chee Peng Lim, Deakin University, Australia, Prof. (Dr.) Ashok K Agrawala, Director of Maryland, USA, Prof. (Dr.) Arif Sarwat, Florida International University, USA, Prof. (Dr.) Narayan C Debnath, Founding Dean School, Eastern International, alfreProf. (Dr.) Abhinav Valada, University of Freiburg, Germany, Prof. (Dr.) Tongliang Liu, Director of Sydney AI Centre, University of Sydney, Australia, Mr. Dan Isaacs, CTO, Mr. Raghavendra Bhat, Principal Engineer, Intel, Prof. (Dr.) B. S. Bindhumadhava, Scientist, Director at CDAC, Meity, Govt. of India, Bangalore, Prof. (Dr.) Sergio Marquez Sanchez, University of Salamanca, Prof. (Dr.) Bernhard Pfahringer, Co-Director AI Institute, University of Waikato, New Zealand,1 Prof. (Dr.) Ahmed A. Elngar, Beni-Suef University, Egypt, Prof. (Dr.) Domenico Talia, University of Calabria, Italy, Prof.

(Dr.) Alvaro Rocha, University of Lisbon, Portugal, Prof (Dr.) Cormac Sreenan, University College Cork, Irelandfurk

Throughout the conference, the audience experienced innovative ways to cope with the current challenges in Cloud computing, data science, and engineering through a broad selection of keynote speakers, tutorials, and special events such as the CEO Forum and Plenary session. The entire event was partitioned into 8 tracks which are based on various plenary sessions covering the core areas: **Machine Learning, IoT and Automation, Image/ Video processing, Cloud Computing and Virtualization, Big Data and Data Mining, Computer Networks and Sensors, AI and Soft Computing, and Algorithms and Software**.

The Amitian Success Stories session was a special one where the alumna, namely **Mr. Vivek Mishra**, Director IT & Services, Compaq, India, **Mr. Nitish Jha**, Co-Founder, Dygital Labs, India, **Mr. Ashwini Kumar**, Software Lead, Amazon, USA, **Ms. Rishika Jain**, Management Consultant, KPMG, India, **Ms. Riya Srivastava**, Cloud Engineer, Google, India all shared their experiences, valuable insights and guided the students on how to upskill themselves, prepare for placements and have a sky-rocketing career.

Alumna -Ms. Riya Srivastava, Cloud Engineer, Google, India

Prof (Dr.) Anupam Narula Professor of Marketing & Dy. Director (Alumni Relations) at Amity University Uttar Pradesh, Noida, India concluded the session by saying, "We believe that for all students, modernity blends with tradition. These conferences, give you the opportunity to learn life skills from alumni."

Valedictory

Valedictory Session was graced by some prominent Resource Persons who were our guests of honour such as **Mr. Durbec Gilles** – Chief Technology Officer, Thales, Noida, India, **Prof. (Dr.) Narayan C. Debnath,** Founding Dean, School of Computing and Information Technology, Eastern International University, Vietnam, **Prof. (Dr.) Keith Sherringham,** PMO Specialist, New South Wales, Australia, **Prof. Dinesh Manocha,** University of Maryland at College Park, USA, **Chief Guest, Dr. P.K. Saxena**, PSA fellow, Office of Principal of Scientific Advisor, Govt. of India & Former Director DRDO**.**

Address by Chief Guest, Dr. P.K. Saxena, PSA fellow, Office of Principal of Scientific Advisor, Govt. of India & Former Director DRDO

Prof. Dinesh Manocha, University of Maryland at College Park, USA and **Prof. (Dr.) Alfredo Cuzzocrea**, University of Calabria, Rende, Italy were conferred Honorary Professorship during the valedictory function of conference.

Esteemed panellists

In the end, **Dr. Shilpi Sharma,** Deputy Head CSE, Amity School of Engineering
& Technology, AUUP proposed a vote of thanks to all and acknowledged the invited guests for gracing the occasion by their solemn presence and all the participants who had travelled from different parts of the country for this conference. Scientists, academicians, Senior officials of Amity University and students were present during the two day Conference – CONFLUENCE 2024.