Dayananda Sagar College of Engineering

INTERNATIONAL CONFERENCE

(Virtual)
on
Applications of Artificial Intelligence and Computational Mathematics

AAICM-2020

Dayananda Sagar College of Engineering

An autonomous institute affiliated to VTU, approved by AICTE & UGC, accredited by NAAC with 'A' Grade."
Shavige Malleshwara Hills,
Kumaraswamy Layout,
Bengaluru - 560078, Karnataka

Organized By
Departments of
CSE, ISE, MCA and Mathematics
7th - 9th December 2020

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Knowledge Partners

Operational Research Society of India
Bangalore Chapter

Soft Computing Research Society

Computer Society of India
Bangalore Chapter

About DSCE

Dayananda Sagar College of Engineering (DSCE) is an Autonomous Institute approved by All India Council for Technical Education (AICTE), Govt. of India and affiliated to Visvesvaraya Technological University (VTU). It has widest choice of engineering branches having 15 Under Graduate programs & 13 Post Graduate programs. In addition, it has 20 Research Centers in various branches of Engineering catering to research scholars for obtaining Ph.D under VTU. All the UG programs are accredited by NBA.DSCE is accredited by NAAC with "A' grade.

The Institute is spread over twenty nine acres of land with large infrastructure supported by laboratories with State-Of-The-Art, Equipment & Machines. The Central Library with modern facilities and the Digital Library provides the knowledge base for the students. The campus Wi-Fi is equipped with large bandwidth internet facility. The College has good faculty strength with highest professional integrity and committed to the academics with transparency in their actions. The faculty members are research oriented having number of sponsored R & D projects from different agencies such as Department of Science & Technology, Defense Research & Development Organization (DRDO), Indian Space Research Organization (ISRO) and AICTE.

About the AAICM-2020

International Conference on Applications of Artificial Intelligence and Computational Mathematics (AAICM-2020) aspires to provide an opportunity for the delegates and participants to share and contribute their original research experiences in the field of Artificial Intelligence, Machine Learning, Cyber security and Computational Mathematics application areas to the knowledge base in the current updated scientific fields mentioned in the conference tracks.

AI is driving rapid change in data and analytics. This will extend the next generation of augmented user experiences beyond dashboards to the use of decision intelligence and X analytics, to finding new insights across streams of data and content, there is a rapid evolution in how and where analysis can be deployed. We look at understanding the business impact of these changes that will allow organizations to optimize resources, accelerate change, drive innovation and transform the society.

There is always a state of risk and security when it comes to cyber applications. Information risks continue to be a focus area for all of us researchers. We see rapid shifts in business and operating models in response to the changing social and economic conditions. In this conference, we wish to create a consistent and credible communication plan that highlights ways in which we can effectively manage information risks.
Artificial intelligence & computational mathematics are two branches of the same tree. Computational mathematics involves mathematical research in mathematics as well as in areas of science where computing plays a central and essential role, and emphasizes algorithms, numerical methods, and symbolic computations.

The idea behind thinking machines & the possibility to mimic human behavior is done with the help of mathematical tool like rules, frames, logics and nets. The primary purpose of AI is to create acceptable models for human understating. These mathematical models can be prepared with the idea and strategies from various branches of mathematics viz. linear algebra, calculus, probability, numerical analysis & optimization. It includes solving mathematical problems by computer simulation as opposed to analytic methods of applied mathematics, numerical techniques of computation, optimal decision making, probabilistic modeling and statistical inference.

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About Department of Computer Science and Engineering

The Department of Computer Science and Engineering, Dayananda Sagar College of Engineering was started in the year 1986 and has an intake of 240 for Under Graduate Course and36 for Post Graduate Course. The Department of Computer Science and Engineering has the best teaching faculty with 11 PhDs, state-of-the-art curriculum, multi-disciplinary research and development environment and an excellent placement record. With a research funding of Rs. 134.95 Lakhs from various funding agencies like Defence Research and Development Organization(DRDO), Department of Science and Technology (DST), Vison Group on Science and Technology (VGST) and VTU.

The Department of CSE, has a number of technical clubs and Innovation labs for Artificial Intelligence and Machine Learning, Internet of Things and Cloud Computing. The department has IEEE RAS, ACM, ACMW and CSI Professional Society Student Chapters.

The Department provides a vibrant learning environment in Computer Science and Engineering with focus on industry needs and research, for the students to be successful global professionals contributing to the society.

About Department of Information Science and Engineering

The Department of Information Science and Engineering, Dayananda Sagar College of Engineering was started in the year 1992. The department is accredited by National Board of Accreditation (NBA)

The Department of Information Science and Engineering offers undergraduate, post graduate programs in Computer Network engineering with a present intake of 120 and 18 students respectively. The department also offers a research program in Computer science and Engineering. It has a recognized research center which is affiliated to Visvesvaraya Technological University, Belgaum. It has an R & D laboratory exclusively for research. It is equipped with good infrastructure facilities. The department has competent faculty members who are constantly involved in research activities. Some of the faculties are Ph.D holders and guiding several research scholars. The department has an excellent placement record with students getting placed in dream companies.

The vision of the department is to excel in teaching and research in the field of Information Science & Engineering with focus on industry needs and to have competent engineering graduates catering to the benefit of the society. Curriculum provided by the department is under constant revision with a wide range of optional courses which enables the students to pursue their interest. The department regularly organizes industrial visits and conducts technical talks, webinar from industry experts.

About Department of Masters of Computer Application

The Department of MCA (VTU), started in 2006, has excelled in its teaching-learning methodology and has a good academic track record. The learning experience here is wholesome, tailored to suit needs of the industry and independent career development. MCA is now a 2 year post graduate degree exclusively designed to meet the IT requirement of any organization. An extremely balanced course with emphasis on planning, designing and building of complex commercial application software and system software, it gives equal importance to functional knowledge in various areas.

Keeping with the current trends, some of the electives provided in the courses are Unix System Programming, Principles of User Interface Design, Web Engineering, Probability Statistics, HRM, Data Science, Information Retrieval and Search Engines, NOSQL, IOT, Machine learning and Cloud computing to name a few.

The faculty members are involved in various fields of research such as Digital Image Processing, Data Mining, Machine learning, Networks, Embedded Systems, Remote Sensing, e-Learning, Wireless sensor Networks and Web Services. They continuously engage themselves in research by publishing in National/International conferences and journals. We have research center for PhD and MSc Engineering affiliated to VTU

The faculty members are involved in various fields of research such as Digital Image Processing, Data Mining, Machine learning, Networks, Embedded Systems, Remote Sensing, e-Learning, Wireless sensor Networks and Web Services. They continuously engage themselves in research by publishing in National/International conferences and journals.

About Department of Mathematics

The department of Mathematics at DSCE was established in the year 1979 with a vision of "creating lifelong competent and socially innovative Engineers, capable of working in multi-cultural environment in the world".

Mathematics, the study of quantity, structure, space and change, is used as an essential tool in natural sciences, engineering, medicine and the social sciences. The subject, that seeks to establish truth by arduous deduction, being the core foundation of the Field of Engineering, aids to build Analytical, Reasoning & Logical skills of the future Engineers and Researchers. Continuous Learning and Research activities satisfy the curiosity of students & it fulfils the objective of our department.

The Department has an excellent research reputation, a strong demanding program and a full range of excellent course offerings. The department offers courses for first & second year BE that also includes Labs, Institutional electives during higher semesters, and courses for first year M.Tech in various branches of Engineering. The Department is equipped with state-of-the-art infrastructure which includes a VTU research center, affiliated to Visvesvaraya Technological University, Belagavi,through which it offers Ph.D. program in various specializations of Mathematics.The department has a strong Industry connect through which the electives are offered and taught in the curriculum. Itrecentlycompleted a research project from ISRO and has MOU for research from ISRO.The department has faculty with research interests in virtually every area of mathematics and theyregularly publish quality research papers in peer reviewed National and International Journals.

The department has a student club "NUMERANO", which provides a unique platform for various disciplines of students to exchange their ideas. The activities that are conducted in the club are helpful in the self-development of the students. Through this club a newsletter "ANK" is released every semester to showcase the activities and growth of the department.

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Chairperson, Dept. of Computer Applications
PES University,Bangalore

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Key Note Speakers and Plenary Speakers

Prof. Ram Ramanathan
Professor,
Operations Management and
Director of BMRI
University of Bedfordshire, UK

Ms. Nimisha Sharath Sharma
Data and Applied Scientist
Microsoft, Seattle, USA

Ms. Bhargavi Narayanasetty
Senior Research Scientist at Intel Labs
Portland, Oregon, United States

Dr. Kusum Deep
Professor, Mathematics, IIT Roorkee,
Visiting Professor, Liverpool Hope
University, UK

Ms. Vandana Verma
Solutions Security Architect
IBM, India

Dr. Krushna Chandra Gouda
Senior Scientist
CSIR, Bangalore

Mr. P. G. Bhat
Founder and Director
Pluma Knowledge Solutions Pvt. Ltd.
Bangalore

Mr. Sayed Raza Ali Quadri
Engineering Manager,
Cisco Systems, Bangalore

Mr. Victor Sundaraj
Head Engineering Academy
Infosys Ltd, Bangalore

Dr. Mathirajan M
Professor, Dept of Management
studies , IIISC- Bangalore

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Call for Papers

AAICM invites researchers, scholars and prospective authors to contribute their original, extended research, survey papers, unpublished research abstracts and full papers in the following topics of conference tracks but not limited to publish in the proceedings of the conference and selected papers in the peer reviewed international journal. The AAICM Conference papers should include Title, Author names, Affiliation, Abstracts, Keywords with the original contribution in the research areas with the length of the pages not exceeding 10 pages. All the papers should be sent to the following email address: **icaaicm2020@dayanandasagar.edu**

Conference Tracks

Artificial Intelligence - Machine Learning
- AI in Education, Healthcare , Defence ,Business and Societal
- Applications
- Reinforcement Learning Techniques
- Industrial Applications of AI and ML

Data Analytics
- Tools, Framework and Mechanisms for Data Analysis
- Natural Language Processing and Deep Learning
- Data Visualization Techniques and Applications

Cyber Security
- Social Network Security
- Ethical Hacking and Digital Forensics
- Steganography Intrusion Detection and Prevention System

Applied Mathematics
- Mathematical Modeling and Numerical Analysis
- Graph Theory, Optimization Techniques and Statistical Analysis

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Conference Paper Submission Dates:

Last date for Abstract Submission : 20th November 2020
Notification for Acceptance of abstract submission : 25th November 2020
Last date for Registration : 30th November 2020
Full paper Submission: only shortlisted abstracts wii be invited to submit the full length paper.
Full paper Acceptance: As per the guidelines of the journal.

Registration

Registration includes Conference proceedings and Certificate

International Delegates (Academia,R & D Organizations & Industries) : 500/-
National Delegates(R & D Organizations/Industries/Academia/Faculty) : 250/-
National Delegates(Students/Research Scholars) : 100/-

All Accepted Papers will be published in Scopus Indexed/UGC Approved Journals after peer review with publication charges. Further, publishing/partnering Journals will be updated in the Conference website.

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Account Number : 74370100007399
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