The Institution of Engineers (India)
A Century of Service to the Nation

FIRST INFORMATION BROCHURE

All India Seminar

On

'Machine Learning and Soft Computing Applications in Engineering and Science (MLSC-ES)'

April 06—07, 2024

Organized by

The Institution of Engineers (India)
Durgapur Local Centre
Under the Aegis of

COMPUTER ENGINEERING DIVISION BOARD, IEI

Venue

IEI Durgapur Local Centre, Nehru Avenue, B-Zone, Durgapur,

West Bengal 713205

ABOUT THE INSTITUTION OF ENGINEERS (INDIA)

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform for sharing professional interest. IEI has membership strength of above 0.8 million. Established in 1920, with its headquarter at 8 Gokhale Road, Kolkata-700020, IEI has served the engineering fraternity close to a century. During this period of time, IEI has been inextricably linked with the history of modern-day engineering.

In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India which has been accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating through its 125 Centres located across the country and 6 overseas chapters. Besides, IEI has bilateral agreements with about 31 international bodies and membership of another 8 international bodies of the developed nations across the globe.

Being recognized as a Scientific and Research Organization (SIRO) by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, IEI promotes the cause of research and development by providing Grant-in-Aid support to undergraduate, postgraduate students and Ph.D. Research Scholars of Engineering Institutions and Universities.

IEI conducts Section A & B Examinations in various engineering disciplines (popularly known as AMIE examination), the successful completion of which is recognized as equivalent to a Degree in appropriate field of Engineering of recognized Universities of India by the Ministry of Human Resources Development, Government of India. Every year, a large number of candidates appear for these exams.

IEI in collaboration with Springer regularly publishes a peer-reviewed international journal in five series, namely, Series A, Series B, Series C, Series D and Series E covering fifteen engineering disciplines.

ABOUT IEI LOCAL CENTRE, DURGAPUR

The Institution of Engineers (India), Durgapur Local Centre established in 1961 in National Institute of Technology, (formerly known as R. E. College) Durgapur. In 1986 it was shifted from NIT Durgapur to Nehru Avenue, B-Zone, Durgapur-713205. Durgapur Local Centre achieved Best Local Centre for the session 2003-2004, 2015-16 and again 2018-2019. Durgapur chapter also achieved 2nd best technicians' chapter for the sessions 2015-2016, 2016-2017, 2017-2018, 2018-2019 consecutively.

Present Corporate Membership Strength is 2867 and Non-corporate (i.e. MT, AT, SM, Technician and Sr Technicians') Strength is 12094 as on 30th September 2023.

ABOUT DURGAPUR CITY
Durgapur is located in the district of Paschim Burdwan, in the state of West Bengal, India. It is a well-planned industrial city on the banks of river Damodar. It was founded in the late fifties by the then Chief Minister of West Bengal Dr. Bidhan Chandra Roy. It is about 175 Kms away from the international Airport Kolkata, capital city of West Bengal. A large number of manufacturing industries are there in Durgapur, which includes Durgapur Steel Plant (DSP), Alloy Steel Plant (ASP), General Electric Manufacturing Unit, Graphite India Ltd, Durgapur Project Ltd., Durgapur Thermal Power Corporation, Philips Carbon Black Ltd, Graphite India Ltd. It is surrounded by many Coal Mines also. It is also having a software technology park of India consisting of various software firms like Pinnacle, Webel etc. It has an ambient environment conducive for studies. The well-built, well lit roads add to the strong infrastructure of Durgapur. At the present day, Durgapur city is evolving as one of the major attractions (after Kolkata) in West Bengal, not only because of its excellent infrastructure, but availability of all modern entertainment and health avenues, like shopping malls, multiplexes, five star hotels, specialty hospitals, etc. Well connectivity with Road, Rail & Air. The connectivity with Kazi Nazrul Islam Airport (Andal) to Delhi, Mumbai, Hyderabad, Chennai, Bangalore etc. is very good.

CALL FOR PAPERS

We are pleased to share that Durgapur Local Centre is organizing All India Seminar on 'Machine Learning and Soft Computing Applications in Engineering and Science (MLSC-ES)' during 6th – 7th April, 2024.

ABOUT THE SEMINAR

Machine learning is a branch of artificial intelligence focused on developing algorithms that enable computers to learn from data and improve their performance over time. It encompasses supervised learning, unsupervised learning, and reinforcement learning, with applications ranging from engineering and science to social sciences. In contrast, soft computing is a field that draws inspiration from human-like cognitive processes to address problems involving uncertainty, imprecision, and approximation. Soft computing includes techniques such as fuzzy logic, neural networks, evolutionary computing, and probabilistic reasoning. These approaches are particularly valuable in scenarios where traditional rule-based methods struggle, allowing for effective problem-solving in complex, real-world situations. Together, machine learning and soft computing contribute to the advancement of intelligent systems capable of adapting and making informed decisions in dynamic environments.

The primary aim of organizing an All India Seminar on Machine Learning and Soft Computing Applications in Engineering and Science is to foster a collaborative platform that brings together researchers, practitioners, and experts from diverse fields to share their latest advancements, insights, and experiences in the realm of machine learning and soft computing. The seminar aims to facilitate the exchange of cutting-edge knowledge and methodologies, providing a forum for discussing innovative applications and solutions in engineering and science. By bringing together professionals from academia, industry, and research institutions, the all India seminar seeks to promote interdisciplinary collaboration, inspiring new ideas and approaches that can address complex challenges in these domains. Furthermore, the conference aims to contribute to the dissemination of research findings, promote networking among participants, and ultimately accelerate the adoption and integration of machine learning and soft computing techniques into practical applications, thereby fostering advancements that have a tangible impact on engineering and scientific endeavours.

The objective of this seminar is to provide a vibrant platform for students, researchers, academicians and technologists to present and share their novel ideas and works in relevant areas in engineering and science. Contributions welcome on the topics of interest include but are not limited to

Machine learning and soft computing in:

- Computer Science and Engineering
- Electrical and Electronics Engineering
- Chemical Engineering
- Material Science
- Biotechnology and Biomedical Engineering
- Mechanical Engineering
- Civil Engineering
- Earth and Environmental Engineering
- Information Technology and Management
- Food Technology
- Medical Science and Technology
- General Science

GUIDELINES FOR AUTHORS

Based on original contributions leads to innovations, plans for development, observations, findings, critical surveys, and case studies, which are invited for discussion in the National Seminar. Authors intending to submit a manuscript for the All India Seminar on 'Machine Learning and Soft Computing Applications in Engineering and Science (MLSC-ES)' are advised to adhere to the guidelines as mentioned below.

- The synopsis/abstract of the Paper within 500 words with a maximum of five keywords has to be submitted first and after acceptance of the same, the full text of the Paper has to be submitted.
- Domain experts will review Synopsis and the decision will be communicated to those authors whose synopsis is accepted.
- Full camera-ready paper should be prepared in line with the follows.
- Papers should be camera-ready in MS-Word format, not exceeding 3000 words in length excluding figures, tables, references and appendices.
- The language of the Publication is English. The mode of presentation should be in third person.
- The Template for preparation of article and the Declaration Form, (to be submitted by the authors duly filled in and signed for copyright purpose) is available with the link https://www.ieindia.org/webui/IEI-Activities.aspx#Call_Papers

- SI units should be used wherever possible. Other units, if used, should be given only in parentheses preceded by SI units.
- Mathematical symbols should be typed and care should be taken to differentiate between similar characters (e.g. 1 and I), upper and lower case letters and superscripts and subscripts.
- Lengthy mathematical proofs and derivations and extensive test data are discouraged. If absolutely essential, they should be given as appendices.

INDUSTRY ALIGNED SPECIAL SESSION

An industry aligned special session "Industry Conclave 2024" will be co-located with the main seminar MLSC-ES 2024. Survey papers, case studies and write-ups on latest technologies are solicited from industry persons and practitioners for presentation at the special session and publication in the proceedings. Submission guidelines are same as regular manuscripts described in "Guidelines for Authors". Some high quality manuscripts will be selected and included into journal special issues with 30% - 40% of new content.
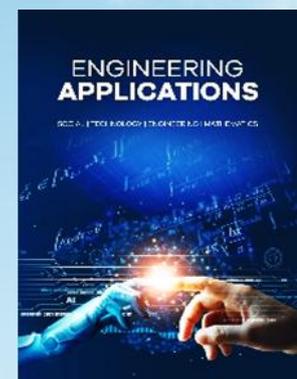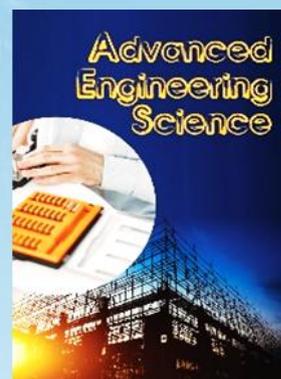
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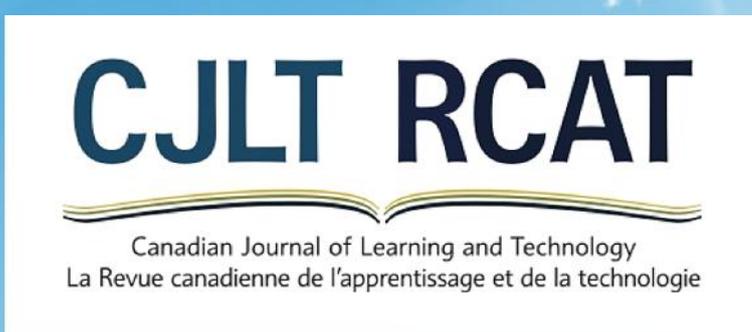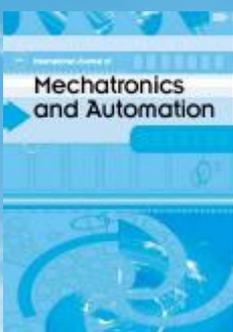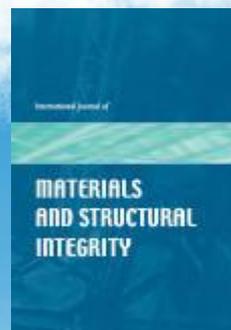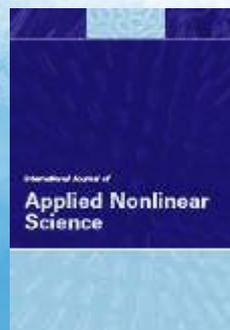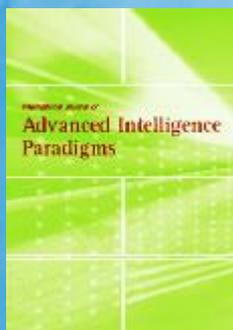
PUBLICATION IN SCOPUS INDEX JOURNAL

All accepted abstracts will be published in Conference Proceeding and full camera ready versions of all the accepted papers will be published in the following SCOPUS / DOAJ Indexed journals (confirmed) subject to recommendation / review.

Journal of The Institution of Engineers (India): Series B

Authors of accepted papers are also welcome to submit substantially revised versions of their papers to the following SCOPUS/ESCI/SCI Indexed journals after publication of conference proceedings, subject to abiding by strict adherence of journal policy (https://www.inderscience.com/mobile/inauthors/index.php?pid=71#conf).

BEST PRESENTATION AWARD

Best presentations will be selected for the award and will be conferred with a Certificate of Merit for each category.

HOW TO SUBMIT

The authors are requested to submit the synopsis/abstract through the Easy Chair platform (https://easychair.org/conferences/?conf=mlsces2024) on and before 15/03/2024. Any query related to the submission or Conference can be written to Convener: Dr. Dakshina Ranjan Kisku, FIE (E-mail: drkisku.cse@nitdgp.ac.in). If you face any difficulty to submit your abstract, you can directly send your abstract with authors names and full affiliation to the above email-id.

For more details and updates, please visit the conference page: (https://easychair.org/cfp/MLSC_ES2024)
OR
http://www.ieidurgapurlc.org/index.php/events/all-india-seminar-on-machine-learning-and-soft-computing-applications-in-engineering-and-science-mlsc-es/

HOW TO REGISTER

After making the payment, the registration form is to be filled up online (LINK WILL be communicated later) and fees receipt to be uploaded in the same google form.

MODE OF REMITTANCE:

The Bank account details are given below may be used for online money transfers:
- Beneficiary: The Institution of Engineers (India), Durgapur Local Centre
- Bank: State Bank of India Branch Code: 02108
- IFSC Code: SBIN0002108
- Account Number: 11520034651
- Branch Details: R. E. College (Durgapur), NIT Campus Durgapur, Dist. Paschim Barddhaman, Pin.713209
- IEI PAN: AAATT3439Q
- GST Number: 19AAATT3439Q6ZM

REGISTRATION FEES

TYPE OF DELEGATES	AMOUNT INR (INCLUDING 18% GST)
AUTHORS / CORPORATE MEMBERS OF IEI / STUDENTS / FACULTY MEMBERS OF NIT DURGAPUR	1500/-
ACADEMLC / RESEARCH INSTITUTIONS	2000/-
INDUSTRY NOMINATED DELIGATES AND OTHERS	2000/-

IMPORTANT DATES

Synopsis submission deadline	~~March 15, 2024~~ March 20, 2024
Notification of acceptance of synopsis	March25, 2024
Full camera-ready paper submission	March 30, 2024
Full-length paper submission (For publication in Journal)	Will be intimated later after the Conference
Registration	March 30, 2024

ACCOMMODATION

Please contact the members of the organizing committee for accommodation. Several good hotels are available nearby the seminar venue.

SONSORSHIP OPPUTUNITIES

MLSC-ES 2024 welcomes sponsorship support from interested corporate organization, industry, academia and government organization. Various levels of sponsorships are available. Interested individuals or parties can directly write to durgapurlc@ieindia.org / drkisku.cse@nitdgp.ac.in for sponsoring the event.

Sponsorship Levels:

Levels	Amount	Sponsorship Benefits
Platinum	Rs. 50,000/-	4 delegates free registration + 10 minutes slot for audio-visual presentation of products/services + Display of Banner
Gold	Rs. 40,000/-	2 delegates free registration + 10 minutes slot for audio-visual presentation of products/services + Display of Banner
Silver	Rs. 30,000/-	2 delegates free registration + Display of Banner
In-Kind Sponsorship / Advertisement	Rs. 15,000/-	Sponsored amount may be utilized for registration kits, reception, coffee breaks, lunch or banquet with display of banner& logo

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