

**Faculty Development Program  
On  
Artificial Intelligence for Societal  
Applications (AISA-2026)**

Sponsored by  
**Anusandhan National Research Foundation (ANRF), Govt.  
of India**

Organised by  
**Department of Electronics and Communication  
Engineering, National Institute of Technology Silchar**

**6<sup>th</sup> to 10<sup>th</sup> March, 2026**



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Director, NIT Silchar

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**Dr. Ram Kumar Karsh**

Assistant Professor (Grade-I), ECE, NIT Silchar

**About NIT Silchar**

National Institute of Technology Silchar is one of the 31 National Institutes of Technology of India and was established in 1967 as a Regional Engineering College Silchar in Assam. In 2002, it was upgraded to the status of National Institute of Technology and was declared as Institute of National Importance under the National Institutes of Technology Act, 2007. NIT Silchar is a fully residential campus situated on the banks of river Barak and on a sprawling green campus spread over 625 acres of land surrounded by scenic tea gardens on the outskirts of Silchar. NIT Silchar is a teaching and research institute which reflects in the top NIRF ranking. In 2025 NIRF ranking, NIT Silchar secured 10th among all NITs, 50th rank in engineering and 97th in overall category.

**About Department of ECE, NIT Silchar**

The Department of Electronics & Communication Engineering offers a four-year B.Tech. program and two-year M. Tech. programs in "Microelectronics and VLSI Design", "Communication and Signal Processing Engineering", "RF and Terahertz Communications", and Ph.D. in various areas of the discipline. Two PG Programs (Micro Electronics & VLSI Design and Communication and Signal Processing Engineering) are NBA accredited. The faculties of the department have a wide variety of expertise with a strong academic background and are alumni of reputed institutes around the world. The graduates of the department are placed in various organizations across the globe. The Department of Electronics and Communication Engineering takes up R&D projects sponsored by various funding agencies such as DST, SERB, BARC, Meity CSIR, and many more.



**Objectives of the Program**

The objectives of the FDP are:

- To impart comprehensive knowledge of artificial intelligence and deep learning principles, tools, and practices.
- To enable participants to design and apply AI-based solutions for societal, industrial, environmental, and healthcare challenges.
- To promote interdisciplinary use of AI across various engineering and applied science domains.
- To introduce emerging research trends, ethical considerations, and trustworthy AI practices for responsible deployment.
- To enhance research, teaching, and innovation capabilities in AI for societal applications..

**Topics to be covered**

Introduction to Artificial Intelligence and Machine Learning  
Fundamentals of Artificial Neural Networks: Neuron Model, Perceptron, Multilayer Networks, and Backpropagation  
Deep Neural Networks (DNNs): CNNs, RNNs, LSTMs and their societal applications  
Advanced Deep Learning Architectures: Generative Adversarial Networks (GANs)  
Transfer Learning and One-Shot Learning  
Graph Convolutional Networks (GCNs)  
Federated Learning and Privacy-Preserving AI  
Explainable, Ethical, and Trustworthy AI for Societal Impact  
AI for Computer Vision Applications  
Deep Learning for Medical Image Processing, Analysis, and Diagnostics  
AI for Speech, Language, and Pathological Signal Processing  
Societal Impact, Challenges, and Future Directions of AI.

**Resource Persons**

Our team of experts is as follows:

1. Prof. M. K. Bhuyan, IIT Guwahati
2. Dr. Jayasree. Chakraborty, Dept. of Surgery, MSKCC, USA

3. Mr. Sauptik Dhar, AI/ML leader, USA
4. Prof. Ram Bilas Pachori, IIT Indore
5. Dr. Abhishek Midya, Mayo Clinic, Florida
6. Mr. Arindam Paul, Industry expert, Bengaluru
7. MS. Swati Swarnkar, Scientist at ISRO
8. Dr. Arun B Alosious, IIT Guwahati
9. Prof. Jimson Mathew IIT Patna
10. Dr. Tharun Kumar Reddy Bollu, IIT Roorkee
11. Dr. M. Sabarimalai Manikandan, IIT Palakkad
12. Dr. M. A. Laskar, Armsotech, Bengaluru
13. Dr. Ramanujam E, NIT Silchar
14. Prof. Rabul Hussain Laskar, NIT Silchar
15. Dr. Ram Kumar Karsh, NIT Silchar
16. Dr. R. Murugan, NIT Silchar

### Who Can Participate

Faculty members, Research scholars, students (UG/PG) and Industry personals.

**Registration Fee: Nil**

**Registration Process**

1. Registrationlink:  
<https://forms.gle/XVMDbktULMe8SA8W6>
2. The brochure of the program may be downloaded from the Institute website [www.nits.ac.in](http://www.nits.ac.in).
3. Last date of registration: 5<sup>th</sup> March 2026

**Total -100 seats and the selection will be done on first-cum-first-serve basis.**

### Accommodation and Travel

Please note that TA/DA or accommodation will not be provided to the participants. However, refreshments will be arranged for all participants during the workshop. Lunch will be arranged for external participants in the institute guest house.

**Mode of FDP:** Hybrid

## REGISTRATION FORM

**ANRF Funded  
Faculty Development Program  
on**

**Artificial Intelligence for Societal Applications**

**(AISA-2026)**

**6<sup>th</sup> to 10<sup>th</sup> March, 2026**

### REGISTRATION FORM

1. Name (block letter): .....
2. Designation .....
6. Organization: .....
7. Address for communication: .....  
.....
- Pin code: ..... Ph. No.: .....
- E-mail: .....
8. Highest Academic Qualification: .....

### DECLARATION

I do hereby agree to abide by the rules and regulations of the FDP.

Place: .....

Date:.....

.....

Signature of the Applicant