One week Entrepreneurship and Skill Development Programme (ESDP)

on

Applications of Cloud, Fog and Edge Computing in Business Analytics

21st-25th February, 2024

Organized by:

**Department of Computer Science & Engineering
National Institute of Technology Sikkim**

Sponsored by

**Ministry of Micro, Small, & Medium Enterprises
(MSME)**

Venue

**National Institute of Technology Sikkim
Barfung Block, Ravangla Sub-Division
South Sikkim - 737 139**

About NIT Sikkim

NIT Sikkim is a public engineering and research institution near the city of Ravangla, Sikkim, India. It is one of the 31 NITs in India and has been declared as an Institute of National Importance by the Government of India. It is an autonomous institute and functioning under the aegis of Ministry of Education (Shiksha Mantrayala), Government of India. NIT, Sikkim is one among the ten newly sanctioned National Institutes of Technology by the Government of India under the 11th Five-year Plan, 2009. NIT Sikkim started functioning in August, 2010. Currently, it is being operated from a temporary campus at the Barfung Block, Ravangla, Sub-Division of South Sikkim. Ravangla campus is surrounded by great scenic beauty. It is likely to continue its activities at Ravangla Campus until its permanent campus comes up at Khamdong, Sikkim. All courses and examinations are conducted in the English language as the only mode of instruction. NIT Sikkim offers a 4-year Bachelor of Technology (B.Tech.) programme in various engineering fields, as well as a 2-year Master of Technology (M.Tech.), Master of Science (M.Sc.) and Ph.D. Programmes. Admissions to undergraduate programmes are taken through JEE (Main). Admission to the postgraduate courses is through the GATE for M.Tech.

About the Department of CSE

The department was established in 2010 with the laying of the foundation of National Institute of Technology Sikkim. The department aims to provide and outstanding research environment complemented by excellence in teaching to produce engineering professionals leading a successful career in industry, academics, and entrepreneurial endeavors. The department offers research in the areas of Cloud Computing, Image Processing, Deep Learning, Internet of Things, Wireless Sensor Network, Parallel-Distributed, High-Performance, Computing, Algorithms and Security. The Dept. has good laboratory facility with modern equipment to encourage the students to cope up with latest technologies. The Department offers B. tech in CSE, M. Tech in CSE and PhD in Engineering. The Department offers B. Tech in CSE with an intake of 45 students/ year, M. Tech with an intake of 22 students/year and Ph. D in Engineering.

Objective of the Training

The entrepreneurs should be able to widely utilize the Cloud Computing resources to set up and run their businesses efficiently and at very low-cost.

- The increase in usability of cloud environment will reduce cost and increase productions and profits, lead to increase in employability.
- The entrepreneurs need to learn the influence of Cloud, Fog, and Edge Computing on various applications such as industry, domestic, commercial, utility and mobility systems.
- The entrepreneurs should learn to set up their businesses smartly at very low cost.

Brief Description of the Topic

Cloud, fog, and edge infrastructures can be merged together to fulfill various needs of many applications in upcoming years. Cloud can to provide significant levels of performance to the diverse users resulting removal of compatibility issues in the business. Clouds can be accessed virtually and edge/fog devices acting as the first layer of nearest computing capability to the user to monitor and control the productions. New methods, approaches and systems for cloud, fog, and edge computing are to be discussed in this workshop. Management systems are essential for the future success of the cloud-fog-edge hierarchy which could be a game-changer for civilization and the whole planet. Artificial

Intelligence (AI) and Machine Learning (ML) techniques can also be used in cloud and fog computing platform for managing potential applications in various domains like industries and agriculture with their large amounts generated of data. Therefore, equipping the entrepreneurs with these technologies is need of the hour and requires training/workshops.

Resource Persons

Experts form IITs, NITs, IIITs, central universities, and industries.

Outcomes of the ESDP Programme

After the training program, the entrepreneurs will able to:
- Widely apply cloud, fog and edge computing in industries and their business for better management.
- Process and analysis the generated data by using AI/ML techniques.
- Monitor the industrial and business cloud, fog and edge computing approaches.
- Applicable to fulfil the demand of skilled in the market.

Food, Accommodation and Travel

- Free accommodation and food during the workshop.
- A travel grant, up to a maximum of Rs. 7000 or the actual, whichever is lower, will be reimbursed upon submission of original tickets and boarding passes.
- The workshop will be conducted in physical mode.

Eligibility

- Persons like entrepreneur, graduates (ITI, Diploma, BSc, MSc, BCA, MCA, B.Tech, and M.Tech, MBAs, BBA, etc.) looking for high end entrepreneurship in sunrise sectors.
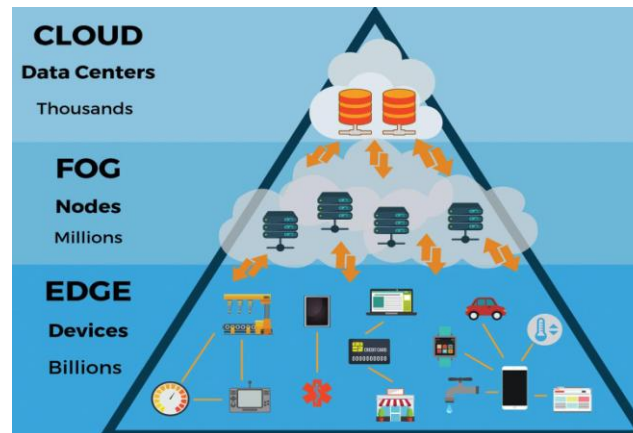- The course is also open for faculties and working professionals from MSME, Industries.

Registration

- Seat is limited.
- Seats will be processed on **first come first serve basis**.
- For registration CLICK HERE OR Scan following QR Code:

Topic to be Covered

- Cloud architecture and its applications in industries
- Fog and Edge Computing
- Cloud deployment strategies and Design Constraints
- Hands on training on Cloud Computing
- Cloud and fog APIs
- Data plans for Fog and Edge Networks
- Fog and Edge Caching Services
- Hands on training of setting up Fog and Edge Network
- AI/ML for business analytics
- Blockchain and smart contracts for edge/fog computing

Organizing Committee

Patron
Prof. Mahesh Chandra Govil,
Director, NIT Sikkim

Coordinators
Dr. Pratyay Kuila, Associate Professor, CSE
Dr. Pankaj Kumar Keserwani, Assistant Professor, CSE

Conveners
Dr. Sangram Ray, Associate Professor, CSE
Dr. Md. Sarfaraj Alam Ansari, Assistant Professor, CSE

Advisory Committee
Dr. Krishna Kumar Assistant Professor, CSE
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