TechSaksham

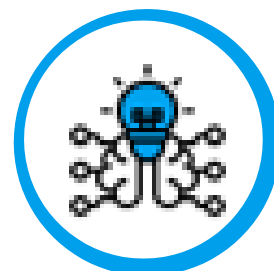**Jagat Guru Nanak Dev Punjab State Open University, Patiala**

Organizes FDP on

Enabling the Professional Development of Faculty on IR 4.0 Technology

Artificial Intelligence

TechSaksham Faculty Development Program Benefits

for participating institutions and faculty members

Access to comprehensive and in-depth knowledge on key technologies through experiential learning.

Regular updates and hands-on knowledge on latest technology developments in AI and CC, challenges, opportunities, and current industry trends.

Tips to effectively integrate technology into the teaching and learning process.

Constant support and mentoring from Microsoft and SAP towards continuing learning journey and completion certificate from Microsoft & SAP

Sustainable ecosystem for faculty to become "Leaders of Change"

Opportunities to leverage open-source technical tools, frameworks, and other packages to integrate in classroom teaching

Leaders of Change

- Strengthen technical skills by continuous learning through Microsoft and SAP e-learning platforms and certifications

- Top 50 faculty members will be recognized as "TechSaksham Ambassadors" at National level on scoring maximum leader of change points.

- Every faculty member will be recognized as "The Leader of Change/Program Champion" at regional level on successful completion of at-least two democratizing sessions at their respective colleges/institutions.

- Access to and support of TechSaksham LMS will be provided to all the faculty members to conduct activities, submit feedback, and obtain details.

- Institutes will be selected as a regional Nodal Centres, which would enhance college visibility as a result of an increase in foot fall for events in TS program.

Attend Live sessions
- Faculty Registration on our Learning Platform
- Experiential Learning

Certification
- Project Activities
- Assessment

Leader of change
- Deliver Seminars
- Boot camps
- Workshops

The TechSaksham Ambassador

Eligibility & Mode of Training

- 70% attendance is mandatory for obtaining the e-certificate for FDP

- Submission of pre-assessment and post-assessment is mandatory for obtaining the certificate for FDP

- Any faculty from Govt./Govt. aided/ college/ University, Pvt. engineering college interested in the relevant theme of the training.

- Faculty from Computer Science, Computer applications, Information Technology, Electronics, and related streams would be ideal candidates for the program.

- Faculty must have access to computer/laptop with an internet connection to participate in the   Full time and guest faculty from Computer Science, Information Technology, Electronics, and related streams and can participate.

- Faculty must have access to a computer/laptop with an internet connection to actively participate in the program for 3-4 hours in duration per day

- All registered participants will receive confirmation and the details for each day in advance.

- The proposed schedule for the FDP sessions is as under for consideration

TechSaksham FDP Proposed Timetable 10:00AM to 2:00PM*				
Sr. No	Dates	Time	Topic	Mode
1	28th Mar'22	10:00AM-2:00PM	AI	Online
2	29th Mar'22	10:00AM-2:00PM	AI	Online
3	30th Mar'22	10:00AM-2:00PM	AI	Online
4	31st Mar'22	10:00AM-2:00PM	AI	Online
5	01st Apr'22	10:00AM-2:00PM	AI	Online
*12:00PM -12:30 PM includes break of 30 minutes for faculties				

Session plan

Sl. No.	Topic Description	Duration(Min.)
1.	**Introduction to Artificial Intelligence** • History of AI and Market Trends • Introduction to AI and ML • Types of Machine Learning – Supervised, Unsupervised, Reinforcement Learning, Semi Supervised • Image Recognition using Microsoft Lobe • Python Basics– Variables, Data types and Libraries • NumPy with Matplotlib Basics **Take Home Activity:** • Data Visualization using Matplotlib	210
2.	**Exploratory Data Analysis and Supervised Learning** • Pandas Data Frame and Series • Data Analysis using Pandas • Linear Regression using Ordinary Least Square • Azure ML Studio Basics • Linear Regression Model using Azure ML Studio **Take Home Activity:** • Create Multi Linear Regression Model	210
3.	**Classification and Text Analytics** • Naïve Bayes Algorithm • Count Vectorizer • Spam Ham Classifier using Naïve Bayes • Concept of Lexicons for Sentiment Analysis • Vader Sentiment Analyzer **Take Home Activity:** • Create a Logistic Regression model on Azure ML Studio	210
4.	**Deep Learning** • Neural Networks– Neurons, Loss Functions, Weights • Gradient Descent and Back propagation • Computer Vision basics and Image Processing • Digit Recognizer using MNIST Dataset **Take Home Activity:** • Create a simple CNN model for Image Classification	210
5.	**Pedagogy and Design Thinking** • Innovations in Artificial Intelligence using Design Thinking • Microsoft Pedagogical tools for making learning more accessible. • Assessment and reflections	210

About Microsoft

Founded in 1975, Microsoft (Nasdaq "MSFT" @microsoft) is the leading platform and productivity company for the mobile-first, cloud-first world, and its mission is to empower every person and every organization on the planet to achieve more. Microsoft set up its India operations in 1990. Today, Microsoft entities in India have over 10,000 employees, engaged in sales and marketing, research, development, and customer services and support, across 11 Indian cities – Ahmedabad, Bangalore, Chennai, New Delhi, Gurugram, Noida, Hyderabad, Kochi, Kolkata, Mumbai, and Pune. Microsoft offers its global cloud services from local data centers to accelerate digital transformation across Indian start-ups, businesses, and government organizations.

About SAP

SAP India is the fastest growing subsidiary of SAP SE, the world's leading provider of business software solutions. SAP India began its operations in 1996 with headquarters in Bangalore and offices in Mumbai, New Delhi, Kolkata, and a direct presence in nine cities across India, besides having marketing associates in Sri Lanka and Bangladesh. Declared as the 'Hub of the year in the Asia Pacific and Japan" in 2007, SAP India witnessed an unprecedented growth of over 100% both in terms of license revenue and customer acquisition.

About Edunet Foundation

Edunet Foundation (EF) promotes youth skilling, innovation, and entrepreneurship. It works with top global technology companies and Indian multinationals to further its goals. It has been working across the education spectrum – with government agencies, colleges, and schools around India – to help prepare our future workforce for future careers. Edunet Foundation enjoys "Special Consultative Status" with the Economic and Social Council at the United Nations. Edunet Foundation was recently certified as a "Great Place to Work", by the Great Place to Work Institute, the global entity that evaluates workplaces on key criteria such as credibility, respect, fairness, pride, and ca ma raderie.

Jagat Guru Nanak Dev Punjab State Open University is established by Govt. of Punjab in Patiala to commemorate the 550th birth anniversary of the Sikhism founder Guru Nanak Dev ji, it is the first open university of the state. The main objective of the University is to provide educational opportunities to students with no or little access to institutions of regular higher learning. The University focus on the realization of equal opportunities in higher education for all sections of the population, including those in employment, women/house wives, adults and Non-Resident Indians, who wish to upgrade their qualification or acquire knowledge and studies in various fields through Open and Distance Learning mode.

Patron: Prof. (Dr.) Karamjeet Singh, Vice Chancellor, Jagat Guru Nanak Dev Punjab State Open University, Patiala

Co-Patron: Prof. (Dr.) Gurdip Singh Batra, Dean (Academic Affairs), Jagat Guru Nanak Dev Punjab State Open University, Patiala

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