PG Department of Computer Science & IT
University of Jammu, Jammu and Kashmir

organizes

5 Day TechSaksham Faculty Development Program

15th Feb 2022 – 19th Feb 2022
(a joint CSR Digital Skills initiative)
in collaboration with

Microsoft, SAP India and Edunet Foundation

PG Department of Computer Science and IT, University of Jammu, Jammu
Currently running - MCA (2 years) Course, M.Tech. (CS) and Ph.D. programme.
Research guidance- 35 Ph.D. scholars
Current research scholars – 25 (approx)

Research areas — Image processing, image visualization, NLP, NIA, networking, data mining, medical imaging etc.

Research publications — publications in high quality Journals with good impact factor

Recent activities– AICTE ATAL FDP, invited talks by eminent academicians, experts from corporate sector.
Research Projects–
1. *Shallow Parser Tools for Indian Languages (PI - Dr. Shubhandan S. Jamwal)*
2. *Development of Web based Intranet Applications for Jammu University Campus (PI – Prof. Lalit Sen Sharma)*
3. *To Trace Vulnerabilities in Network Applications and Develop Generalized Snort Rules to Counter these Vulnerabilities (PI – Prof. Lalit Sen Sharma)*

Placements Students have made their mark in corporate world and are occupying important positions in various multinational organizations both inside and outside the country.

URL– *https://jammuuniversity.ac.in/computer-science-it/faculty*

Number of Participants: 50 (*on first come first serve basis*) Mode: Online
NO REGISTRATION FEE
REGISTRATION DEADLINE: 14th Feb 2022
Registration Link: https://techsaksham.org/fdp-registration-form/

PATRON
Prof. Manoj K. Dhar, Vice Chancellor, University of Jammu
CONVENER
Prof. Pawanesh Abrol, Head Dept. of Computer Science and IT
ORGANIZING SECRETARY
Dr. Shubhnandan S. Jamwal
ORGANIZING COMMITTEE
Prof. Vibhakar Mansotra   Prof. Vinod Sharma   Prof. Lalit Sen Sharma   Sh. Jasbir Singh
PROGRAMME COMMITTEE
Dr. Suresh Rao   Dr. Alka Gupta   Dr. Palak   Dr. Sawinder Kour
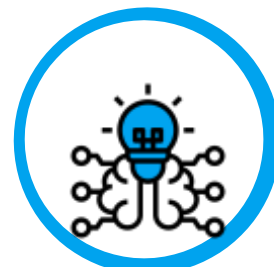**TECHNICAL COMMITTEE**
Sh. Anil Tickoo   Sh.Sanjay Manhas   S. Gurpal Singh

PG Department of Computer Science and IT, University of Jammu

organizes **FDP** on **AI**

under **TechSaksham Program** for

Enabling the professional development of faculty in IR 4.0 technologies

Artificial Intelligence

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 Tech Saksham 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 Centers, which would enhance college visibility as a result of an increase in footfall for events in TS program.

Attend Live sessions
- Faculty Registration by invitation
- Experiential Learning

Certification
- Project Activities
- Assessment

Leader of change
- Deliver Seminars
- Bootcamps
- Workshops

The TechSaksham Amabassador

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 e-certificate for FDP

- Any faculty from Govt./Govt aided colleges, universities and private engineering colleges 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

- Training will be delivered in offline mode (face to face) and the FDP sessions will be 4 hours in duration

- All registered participants will receive confirmation for participation

Sr. No	Date	Time	Topic	Mode
1	15/02/22	11:00AM-3:00PM	AI	Online
2	16/02/22	11:30AM-3:00PM	AI	Online
3	17/02/22	11:30AM-3:00PM	AI	Online
4	18/02/22	11:30AM-3:00PM	AI	Online
5	19/02/22	11:30AM-3:30PM	AI	Online

Session plan

Sl. No.	Topic Description	Duration (Min.)
1.	**Introduction to Artificial Intelligence** • History of AI and Market Trends (20) • Introduction to AI and ML (20) • Types of Machine Learning – Supervised, Unsupervised, Reinforcement Learning, Semi Supervised (20) • Image Recognition using Microsoft Lobe (30) • Python Basics – Variables, Datatypes and Libraries (30) • NumPy with Matplotlib Basics (30) **Take Home Activity:** • Data Visualization using Matplotlib	210
2.	**Exploratory Data Analysis and Supervised Learning** • Pandas Data Frame and Series (10) • Data Analysis using Pandas (60) • Linear Regression using Ordinary Least Square (30) • Azure ML Studio Basics (20) • Linear Regression Model using Azure ML Studio (30) **Take Home Activity:** • Create Multi Linear Regression Model	210
3.	**Classification and Text Analytics** • Naïve Bayes Algorithm (20) • Count Vectorizer (20) • Spam Ham Classifier using Naïve Bayes (50) • Concept of Lexicons for Sentiment Analysis (20) • Vader Sentiment Analyzer (40) **Take Home Activity:** • Create a Logistic Regression model on Azure ML Studio	210
4.	**Deep Learning** • Neural Networks – Neurons, Loss Functions, Weights (30) • Gradient Descent and Backpropagation (40) • Computer Vision basics and Image Processing (30) • Digit Recognizer using MNIST Dataset (50) **Take Home Activity:** • Create a simple CNN model for Image Classification	210
5.	**Pedagogy and Design Thinking** • Innovations in Artificial Intelligence using Design Thinking (50) • Microsoft Pedagogical tools for making learning more accessible. (50) • Assessment and reflections (50)	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.

Website: www.techsaksham.org
Email: **tspfdp@edunetfoundation.org**

LinkedIn: https://www.linkedin.com/company/edunetfoundation
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Facebook: https://www.facebook.com/edunetfoundation
Twitter: https://twitter.com/EdunetF

Register now: https://techsaksham.org/fdp-registration-form/