

## ADVISORY COMMITTEE

**Prof. A. N. Santhosh Kumar**  
Vice-Chancellor , JSS STU, Mysuru.

**Prof. S. A.Dhanaraj**  
Registrar, , JSS STU, Mysuru.

**Prof. S.B.Kivade**  
Principal, SJCE, JSS STU, Mysuru.

**Prof. V.N,Manjunath Aradhya**  
HOD, Dept. of CA, JSS STU, Mysuru

## WORKSHOP CONVENERS

**Prof. Bharathi R K**  
Professor, Department of Computer Applications  
JSS Science and Technology University, Mysuru

**9481150296 / 6360092715**  
**rkbharathi@jssstuniv.in**

**Mrs. C J Harshitha**  
Assistant Professor,  
Department of Computer Applications,  
JSS Science and Technology University, Mysuru

**9916373715**  
**harshi.cj@jssstuniv.in**

## COLLABORATING HOST

**Prof. B H Shekar**  
Professor, DOS in Computer Science,  
Mangalore University, Mangalore

**Dr. Surya Prakash**  
Associate Professor,  
Department of Computer Science and Engineering,  
IIT, Indore

## REGISTRATION DETAILS

- No Registration Fee.
- Participant should register using the following link: <https://atalacademy.aicte-india.org/participant/workshop>
- Institution approval letter which is attached at the end of the brochure shall be filled and forwarded to the convener email id.
- Participants enrolling to the FDP should attend both online (Week-1) and offline (Week-2) sessions.
- Refreshment and lunch will be provided during the offline session.
- TA/DA allowance are not provided for the participants.
- Certificates are issued to only those participants who score 80% attendance and minimum of 60% marks in the tests.

## Highlights of FDP

- Distinguished Lectures
- Exemplary Sessions
- Practical Exposures
- Journal Article discussion and reviews
- Panel Presentations & Discussions



**AICTE Training and Learning (ATAL) Academy**  
sponsored

**Two Weeks Blended Mode FDP**

**On**

**“RESEARCH AVENUES IN  
BIOMETRICS USING LOW-COST  
DEVICES”**

**05<sup>th</sup> - 16<sup>th</sup> Dec 2022**



**DAIMOND JUBILEE YEAR:1963-2022**

**DEPARTMENT OF COMPUTER APPLICATIONS**  
JSS Science and Technology University  
JSS Technical Institutions Campus  
Mysuru-570006, Karnataka  
INDIA

## JSS MAHAVIDYAPEETHA

JSS Mahavidyapeetha was established in the year 1954 to impart quality education and to shape the young minds into good citizens. The core purpose of the JSSMVP is to transform lives through the philosophy of 'education for all'. JSSMVP with its high ideals has been serving remarkably in religious, social, educational & economic spheres in the state and across the country

## ABOUT THE UNIVERSITY

JSS Science and Technology University has been established in 2016 envisioning creating a bright future and a desired learner centric eco system and transforming into a futuristic global University. JSS University is built on a strong reputation of SJCE, Mysuru, and passionately committed for providing education in Science, Technology, Engineering & Mathematics (STEM) and Management with an objective of transforming the students at all levels of higher education including research and innovation with measures to improve quality of workforce.



### National Focus:

JSSSTU orients its efforts towards overall development of students', aligning the investments with strategic priorities to cater to the Nations' Vision. JSSSTU streamlines the systems and processes to make the most of the resources and minimise bureaucracy.

### Global reach:

JSSSTU broaden the efforts to meet the global needs of the larger world community with focused priorities including a multi-cultural community of students and staff and become a truly international university. JSSSTU aims to prepare students for diversified technological environments worldwide, and develop international alliances and partnerships.

The vision of JSS Science and Technology University is to be an effective instrument in enhancement of knowledge in the Society and thus the social transformation. The Strategic priorities includes:

- ❖ Prominent National Status
- ❖ Quality Teaching & Learning
- ❖ Research of International Repute
- ❖ State of the art infrastructure of International Standard.
- ❖ Open access to knowledge through Distance Education
- ❖ Collaborations & MOU

## ABOUT THE DEPARTMENT

Department of Computer Applications has been established to design and offer courses (MCA and BCA) with the objectives of producing the best computer professionals to keep swiftness with R & D activities in the fast-emerging field of Computer Applications. Ever since its inception in 1986, the department strives to meet the computing needs of different sectors and offering specially designed courses to the students. The department always strives to provide students well suited to the requirements of the Industry, Research Institutes, and Academia.



Name: \_\_\_\_\_

Gender: \_\_\_\_\_

Qualification : \_\_\_\_\_

Teaching/Industry Experience: \_\_\_\_\_

Designation: \_\_\_\_\_

Department: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

E-mail address: \_\_\_\_\_

Mobile no.: \_\_\_\_\_

Signature of the Applicant

**Sponsoring Authority**

Mr./Ms./Dr. \_\_\_\_\_ is an employee of our

organization and is permitted to attend the above titled FDP, if selected.

DATE

Signature with Seal  
Institution Head

**COURSE OBJECTIVES**

❖ To provide a theoretical knowledge and practical exposure to the participants including:

❖ Building awareness towards the Machine Learning and Deep Learning Architecture in Biometrics.

❖ Gap between the design and development of Biometric devices

❖ Research avenues in development of low-cost devices for authentication and authorization

❖ Building communities of research students, educator, R&D, and Industry persons in this emerging area of research and development.

❖ Providing hands-on tutorial sessions, where the participants can experiment with concepts and methods.

❖ Cases studies and discussion on Biometrics.

**OUTCOME OF THE PROGRAM**

❖ State of the art research avenues in Biometrics.

❖ Attain the skill to develop ML & DL algorithms.

❖ Discuss the journal articles and develop a report based on the analysis.

❖ Be able to develop algorithms and relate the recent models for solving the research needs in Biometrics.

❖ Focus on Biometric device design and development

❖ Relate the existing e-devices to solve the issues on person identification/ authentication and verification.

Last Date to Apply	25.11.2022
Notification of Approval	28.11.2022
Submission of approval from the Institution/ Industry	30.11.2022
Registration Confirmation	01.12.2022

**Note: Participants shall send the permission letter from the institution after receiving the notification of participation confirmation**

**RESOURCE PERSONS**

**Prof. D S Guru**

Professor, DOS in Computer Science, University of Mysore, Mysore

**Prof. B H Shekar**

Professor, DOS in Computer Science, Mangalore University, Mangalore

**Dr. Surya Prakash**

Associate Professor, Department of Computer Science and Engineering, IIT, Indore

**Prof. Murali S**

Professor, Maharaja Institute of Technology, Mandya.

**Dr. H Honnegowda**

CEO, KSTA and Special Director (Technical)(Ret.), DST, GOK.

**Prof. B. S. Harish**

Professor, Dept. of IS & E, JSS STU, Mysore

**Prof. H.S.Nagndera Swamy**

Professor, DOS in Computer Science, University of Mysore, Mysore

**Prof. Manjunath Aradya V N**

Professor and Head, Dept. of CA, JSS STU, Mysore

**Prof. Sahana Gowda**

Registrar, RV University, Bangalore

**Prof Geetha Kiran A**

Professor and Head, Dept. of C S & E, Malnad College of Engineering, Hassan

**Prof. Sharmila Kumari**

Professor and Head, Dept. of C S & E, PA College of Engineering, Mangalore

**Prof. Thippeswamy G**

Professor and Head, Dept.. of C S & E, BMS Institute of Technology, Bangalore

**Dr. Sharadha Bhat**

Associate Professor, GFG College, Karwar

**Dr. H. R. Chennamma**

Associate Professor, Dept. of CA, JSS STU, Mysore

**Dr. Mohammed Javed**

Assistant Professor, Dept. of CS & E, IIT, Allahabad



EVENT SCHEDULE -Week One (ONLINE)		
Day	Time	Topic Covered
5-12-22 (MONDAY)	07:00 to 07:50 PM	SESSION 1(I) Introduction on Research Avenues in Biometrics <b>Dr. Surya Prakash</b>
	08:00 to 08:50 PM	SESSION 1(II) Ear as a Modality: Path and Progress <b>Dr. Surya Prakash</b>
	09:00 to 09:30 PM	SESSION 1 - INTERACTION
6-12-22 (TUESDAY)	07:00 to 07:50 PM	SESSION 2(I, II) GIAT as a modality in Biometrics <b>Prof. H S Nagendraswamy</b>
	08:00 to 08:50 PM	
	09:00 to 09:30 PM	SESSION 2 - INTERACTION
7-12-22 (WEDNESDAY)	07:00 to 07:50 PM	SESSION 3(I) Research Methodology: Trends and Skills <b>Prof. Sahana Gowda</b>
	08:00 to 08:50 PM	SESSION 3(II) Prospective Research proposals and Funding Agencies <b>Dr. H. Honnegowda</b>
	09:00 to 09:30 PM	SESSION 3 - INTERACTION
8-12-22 (THURSDAY)	07:00 to 07:50 PM	SESSION 4(I, II) Science, Skills and Essentials in Teaching for Life Long Learning <b>Prof. Murali S</b>
	08:00 to 08:50 PM	
	09:00 to 09:30 PM	SESSION 4 - INTERACTION
9-12-22 (FRIDAY)	07:00 to 07:50 PM	SESSION 5(I) Various Machine Learning Models for Iris Based Person Authentication System <b>Dr. Sharadha Bhat</b>
	08:00 to 08:50 PM	SESSION 5(II) <b>Demo:</b> Rriesz Signal Based Binary Pattern for IRIS Authentication <b>Dr. Sharadha Bhat</b>
	09:00 to 09:30 PM	
		SESSION 5 - INTERACTION
10-12 -2022 (Saturday)	07:00 to 07:50 PM	SESSION 6(I, II) Research Scope for Developing Efficient Biometric applications in the Compressed Domine <b>Dr. Mohammed Javed</b>
	08:00 to 08:50PM	
	09:00 to 09:30 PM	SESSION 6 - INTERACTION

EVENT SCHEDULE -Week Two (OFFLINE)								
Date / Day	09:30 AM to 12:00 PM Inauguration (9:00-9:30)	12:00PM to 1:00PM	1:00 PM to 2:00 PM	2:00 to 3:00 PM	3:00 to 4:00 PM	4:00 PM to 5:00 PM		
12-12-2022 (MONDAY)	SESSION-7 Deep Learning Based Models for Multimodal Biometrics <b>Prof. B H Shekar</b>	ARTICLE 1 DISCUSSION	<b>L U N C H</b>	SESSION-08 Multimodal Biometrics Systems: Research Progress <b>Prof. Sharmila Kumari</b>		NEP 2020: Implementational Challenges in HEI's <b>Prof. G Thippeswamy</b>		
13-12-2022 (TUESDAY)	SESSION-09 User Dependent Parameters in Biometrics <b>Prof. D S Guru</b>	ARTICLE 2 DISCUSSION		SESSION-10 Evolution of Devices: Specific to Handwritten Signature Recognition and Verification <b>Prof. R. K. Bharathi</b>		Teaching Practice		
14-12-2022 (WEDNESDAY)	SESSION-11 Few Short learning: Perspective on Face Recognition <b>Prof. V. N. Manjunath Aradhya</b>	Reflection Journal		SESSION-12 Research avenues in Digital Forensics <b>Dr. H. R. Chennamma</b>		Teaching Practice		
15-12-2022 (THURSDAY)	SESSION-13 Sclera as a Modality in Biometrics <b>Prof. B S Harish</b>	TRAVEL FOR VISIT		VISIT to SKANRAY Technologies Ltd.		TRAVEL BACK		
16-12-2022 (FRIDAY)	SESSION-14 Computer Vision Technologies in Biometrics <b>Prof. Geetha Kiran A</b>	Visit Report (Team)		MCQ	Feedback	VALIDICTORY		
				<b>B R E A K</b>				