BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT
AVALAHALLI, YELAHANKA, BENGALURU-560064

Department of CSE
Open Course Details (2022-23)

1. *Title of the Open Course:* MATLAB Programming and Image processing

2. *Co-ordinator (One faculty only):* **Dr.Surekha R. Gondkar**

3. *Faculty Name handling the course (Internal and External):*

Internal: Dr.Surekha R. Gondkar
External:NIL

4. *Percentage of syllabus covered by*
   a. *Internal resource person:100%*
   b. *External resource person:--*

5. *Abstract/Summary of the Course:* Although computers keep getting faster and faster, there are always new image processing (IP) applications that need more processing than is available. Examples of current high-demand applications include real-time video stream encoding and decoding, real-time biometric (face, retina, and/or fingerprint) recognition, and military aerial and satellite surveillance applications, Medical field, Machine/Robot vision, Color processing etc. To meet the demands of these and future applications, we need to develop new techniques for accelerating image-based applications on commercial hardware.

Since digital image processing has very wide applications and almost all of the technical fields are impacted by DIP, we will just discuss some of the major applications of DIP Digital Image processing is not just limited to adjust the spatial resolution of the everyday images captured by the camera. It is not just limited to increase the brightness of the photo, e.t.c. Rather it is far more than that.

So this online course has been organized in order to provide the students a platform to learn the fundamental concepts of image processing, the software's used to process these images and become equipped to identify the problems in the society that need the solutions based on these techniques.

6. *Lab requirement if needed: yes*

7. *If yes (6) mention the requirements: Computers with internet facility*

8. *Excepted students turnout:50*

Note:
- *Summary to contain Scope and Applications of the course (8 to 10 lines).*

Department of CSE
Course Schedule: (Course Title)
2022-2023

Sl No.	Date	Topics covered		Topics covered		Topics covered	Assessment and Feedback
		8:30 to 10:30 am	10:30 to 10:50 am	10:50 to 12:50 pm	12:50 to 1:50 pm	1:50 to 4:00	4:00 to 4:30 pm
1	12.06.2023	Overview of the Course and basics of MATLAB	TEA BREAK	Understanding the MATLAB Environment	LUNCH BREAK	Hands on session	Overall Feedback & Assessment

Programming

2	13.06.2023	**Basics of Image Processing**	**MATLAB programming preliminaries**	**Hands on session**	**Overall Feedback & Assessment**
3	14.06.2023	**Low level processing techniques**	**MATLAB programming examples for low level processing**	**Hands on session**	**Overall Feedback & Assessment**
4	15.06.2023	**Mid level processing techniques**	**MATLAB programming examples for Mid level processing**	**Hands on session**	**Overall Feedback & Assessment**
5	16.06.2023	**Real time applications-SAR images**	**Lab practice session**	**Lab practice session**	**Overall Feedback & Assessment**