



Learn Beyond

KPR Institute of Engineering and Technology

(Autonomous, NAAC "A")

Avinashi Road, Arasur, Coimbatore.

Phone: 0422-2635600

Web: kpriet.ac.in

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BM014**NBA Accredited**
(CSE, ECE, EEE,
MECH, CIVIL)**WEBINAR**

Event No	BM014
Organizing Department	Biomedical Engineering
Associate Dept. NSC	Industry Institute Partnership Cell
Date	01/11/2022
Time	03:00 PM to 04:00 PM
Event Type	Guest Lecture
Event Level	Dept. Level
Meeting Medium	
Meeting Link	https://meet.google.com/tnm-rhfd-tna
Total Participants	55
Faculty - Internal	2
Students - Internal	53

Related SDG



Resource Persons

Sl	Type	Name	Designation	Company	Email	Phone
1	Resource Person	Raghul R	Computer Vision Engineer	TartanSense Pvt. Limited	raghul.rgr@gmail.com	xxxxxxxxxx

Involved Staffs

Sl	Name	Role
1	Priya Darshini B	Coordinator
2	Krishna Kumar R	Coordinator
3	hod_bme@kpriet.ac.in	Convenor

Outcome




- To understand the basic concepts of pattern recognition
- To apply Principal component analysis and decision theory algorithms for image classification
- To train and analyze real-time images for feature extraction and image classification

Event Summary

To understand the basic concepts of pattern recognition
 To apply Principal component analysis and decision theory algorithms for image classification
 To train and analyze real-time images for feature extraction and image classification

Pattern recognition is the major field in image feature extraction and classification. Principal Component Analysis is mainly used as the dimensionality reduction technique in various AI applications. It can also be used for finding hidden patterns if data has high dimensions. PCA is effective for regression and classification problems with high-dimensional input data. It works by estimating a sequence of principal components that have maximal dependence on the response variable. Decision Theory is a fundamental statistical approach to the problem of pattern classification. It is considered as the ideal pattern classifier and often used as the benchmark for other algorithms because its decision rule automatically minimizes its loss function.

The webinar was organized for IV year Biomedical Engineering Students on 01.11.2022 from 03:00 a.m. to 04:00 pm. Total of 53 students and two faculty members attended the webinar and got benefited. The webinar gave an overview of image feature extraction and classification based on PCA and decision theory. The algorithm and its importance in Pattern recognition and classification was summarized. The mathematical deviations involved in the algorithms was explained briefly. Types of methods along with their advantages and disadvantages in decision theory was stated. The resource person demonstrated the application using OpenCV with the training and testing sample dataset. The working of PCA in real time was clearly explained.

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DEPARTMENT OF BIOMEDICAL ENGINEERING
In association with Industry Institute Partnership Cell (IIPC) organizes a webinar on

Pattern Recognition based on Principal Component Analysis and Decision Theory

Resource Person

Mr.R. RAGHUL
Computer Vision Engineer,
TartanSense Pvt.Ltd,
Bengaluru.

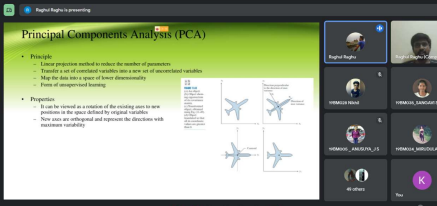
01st NOVEMBER '22
03.00 PM - 04.00 PM

Google Meet : <https://meet.google.com/nm-rhfd-tna>

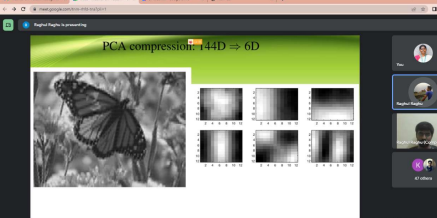
Convener	Faculty Coordinators	Student Coordinators
Dr. D. Ganesh Kumar HOD, BME	Ms. B. Priya Darshini, AP/BME Ms. R. Krishna Kumar, AP/BME	Ms. Deepan Chakravarthy N, IV BME Ms. Sowya N, IV BME

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