



K.S.INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main Road,
Bengaluru-560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



REPORT ON

3 Days Workshop on IMAGE PROCESSING WITH OPENCV



Coordinators

Dr. Ganga Holi,
Professor, Department of CSE
KSIT, BANGALORE

Prof. Raghavendrachar S,
Assistant Professor,
Department of CSE
KSIT, BANGALORE

Prof. Roopesh Kumar BN,
Assistant Professor,
Department of CSE
KSIT, BANGALORE

Organizing Chair

Dr. Rekha B Venkatapur
Professor & Head, Department of CSE
KSIT, BANGALORE

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FDP Inauguration Brochure



KAMMAVARI SANGHAM (R) 1952

K. S. Institute of Technology

No. 14, Raghuvanahalli, Kanakapura Road, Bengaluru-560 109.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

In association with



Cordially Invite you for the Inaugural function of

3 Days Workshop

“Image processing with OpenCV”

[30th October – 2nd November 2023]

On 30th October 2023 in Seminar Hall New Block at 9 am

Will grace Function

Dr. K.V.A. Balaji, CEO, KSGI

Dr. Dilip Kumar. K, Principal & Director, KSIT

Dr. Pradeep Desai, Chairman, CSI-BC, Bengaluru

Chief Coordinator
Dr. Ganga Holi,
Professor

Coordinators
Prof. Roopesh Kumar B.N.
Assistant Professor
&
Prof Raghavendrachar.S.
Assistant Professor

Organizing Chair
Dr. Rekha B Venkatapur.
Professor & HOD, Dept. of CSE



KSIT
K.S. INSTITUTE OF TECHNOLOGY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Session wise details of 3 Days workshop on “Image Processing with OpenCV”

Date/Day	Session 1 9.00 am 10.30am	Resource Person		Session-2 11.00- 12.30pm	Resource Person		Session-3 1.30-3.00	Resource Person
DAY-1 30/10/2023	Inauguration & Keynote	Dr.Pradeep Desai, Chairman Bengaluru Chapter (CSI-BC)	10.45 am- 11.00 am Tea break	Fundamentals of Digital Image processing	Dr. Prashantha. HS	12.30pm -1.30pm Lunch Break	Hands on Session on OpenCV	Dr.Ganga Holi
DAY-2 31/10/2023	Image Enhancement	Dr.Ganga Holi		Image segmentation and Morphological operations	Dr.Vijayalaxmi Mekali		Hands on Session on OpenCV- Image Enhancement	Dr.Ganga Holi
DAY-3 02/11/2023	Machine learning for DIP Applications	Ravindranath K, Research Scholar, NIT, Tiruchy		Image restoration and Image filtering Dr.Arachana.H.R,Asst. Professor,BMSCE			Mini Project on Image Processing using OpenCV	



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Image Processing with OpenCV Department Level Committee Coordinators

➤ **Registration Committee**

Faculty Members:

Dr. Kusuma

Dr. Sankamanavalli

➤ **Stage Committee**

Faculty Members:

Mrs. Kavya

Mrs.Pallavi K N

Mrs.Pallavi R

Mrs. Rashmi H

➤ **Stage Committee**

Faculty Members:

Mr. Raghavendrachar S

Mr.RoopeshKumarBN

Mr. Babu G

➤ **Lab in-charge During Hands on Session**

Faculty Members:

Mr.Abhilash

Ms. Preethi

Mrs. Rekha

K.S. INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE & ENGG.
Image processing with CV workshop-Registration Form

SL.NO	USN	NAME OF THE STUDENT	
1	1KS20CS058	N KEERTHANA	100
2	1KS20CS059	NAJEEB MUTHAHEED ARIN UL HAQ	100
3	1KS20CS060	NAMRATHA R	100
4	1KS20CS061	NARASIMHA N	100
5	1KS20CS062	NEHA REDDY S	100
6	1KS20CS063	NIDHI K V	100
7	1KS20CS064	NIRMITHA N	100
8	1KS20CS065	N NITHESH KUMAR	100
9	1KS20CS066	NUTHANAPATI DEVITHA	100
10	1KS20CS067	PARVA SHREE..H M	100
11	1KS20CS068	PARVATHY P S	100
12	1KS20CS071	PAVAN M	100
13	1KS20CS072	PAVAN P	100
14	1KS20CS073	PAVITHRA R	100
15	1KS20CS074	POOJITHA Y	100
16	1KS20CS075	POONAM	100
17	1KS20CS076	PRADHYUMNA K	100
18	1KS20CS077	PRAJWAL NAIK U	100
19	1KS20CS078	R.KUSHAL SAI	100
20	1KS20CS079	RAGHAVI C S	100
21	1KS20CS080	RAKSHITH.C MAHALADKAR	100
22	1KS20CS081	RAKSHITHA P	100
23	1KS20CS083	S.SAI SHANKARI	100
24	1KS20CS084	SAAHIL BHUJANG DHARMAJI	100
25	1KS20CS086	SAHANA R	100
26	1KS20CS088	SANKET GANAPATI HEGDE	100
27	1KS20CS089	SHASHIKANTH N G	100
28	1KS20CS090	SHASHWATHA H M	100
29	1KS20CS091	SHILPA M	100
30	1KS20CS092	SHRAVYA M R	100
31	1KS20CS093	SINDHURA H	100
32	1KS20CS094	SIRIPIREDDY THULASI	100
33	1KS20CS096	SPOORTHY.N	100
34	1KS20CS097	SRISHTI SRIVASTAVA	100
35	1KS20CS099	SUSHMA SRIKANTA KURANDWAD	100
36	1KS20CS100	TAHREEM IMAD PASHA	100
37	1KS20CS101	TALIB MUKHTAR CHODA	100
38	1KS20CS102	TANVI KAMATH	100
39	1KS20CS103	THANUSHA K	100
40	1KS20CS104	TRUPTHI G B	100
41	1KS20CS105	TUSHAR S	100
42	1KS20CS106	V ARVIND	100

43	1KS20CS107	VAISHNAVI M	100
44	1KS20CS108	VANDANA N	100
45	1KS20CS109	VANDANA.N	100
46	1KS20CS110	VIBHAV KAUSHIK V	100
47	1KS20CS111	VIKAS KASHYAP R	100
48	1KS20CS112	VISHAL N KORABU	100
49	1KS20CS113	VUMMANENI CHARAN	100
50	1KS20CS114	Y JHANSI	100
51	1KS20CS115	MOHAMMAD TAHA	100
52	1KS20CS116	ASHRIT MADHAV VADIRAJ	100
53	1KS20CS117	DEEPAK S	100
54	1KS20CS118	K R SAHANA	100
55	1KS20CS119	SNEHA A S	100
56	1KS20CS120	AJAY GIRISH	100
57	1KS20CS121	SAKSHAM SINGH	100
58	1KS20CS122	RAVI VAMSHI D N	100
59	1KS20CS123	SANJANA G	100



K.S.INSTITUTE OF TECHNOLOGY, BANGALORE

Department of Computer Science and Engineering
3 Days Workshop on “ Image Processing with OpenCV”
(30th October 2023 to 2nd November 2023)

PROFILE DETAILS

Name: Dr. Pradeep V Desai

Designation: Director of K. S Research and Innovation Foundation and Prof. of Computer Science and Engineering Department at KSIT.

Email: pradeep.desai@ksit.edu.in



Short Biography:

- Dr. Pradeep V Desai has completed MBA in Computer Applications from Newport University, USA. Master in Electronics and Bachelor in Electronics & Communication. PhD in Computer Science and Engineering. Post-Doctoral in Symbolic Data Analysis and Neural Nets, at Dauphine University, Paris, France.
- Dr. Pradeep V Desai has over 30 years of experience comprising of Industry and Entrepreneurship. Sir is the Director of KS Research and Innovation Foundation and Prof. of Computer Science and Engineering Department at KSIT. Currently, He is setting up KS Research and Innovation Foundation for the KS Group. He has held senior leadership positions at General Electric (GE), Tata Consultancy Services (TCS), Philips Research, and Wipro Technologies. He had set up and lead their global teams for Research and Innovations.
- Had Expertise in areas like
 - MedTech and HealthTech
 - Value Propositions, Business Models, and Commercialization
 - AI & ML, Data & Analytics, IoT, Cloud, and Mobility
 - Software, Embedded Systems, and Platforms
- Sir has a Professional Memberships in:
 - Fellow, Institution of Engineering and Technology, UK.
 - Senior Member, Institute of Electrical & Electronics Engineers, USA
 - Chairman of Computer Society of India, Bangalore Chapter.



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PROFILE DETAILS

Name: Dr. Ganga Holi

Designation: Professor, CSE, KSIT, Bengaluru

Phone: 9739711159

Email: dr.gangaholi@ksit.edu.in



Short Biography:

- Dr. Ganga Holi mam had completed B.E., M.Tech in CSE from VTU and completed PhD in 2013. She has over 27 years of experience in teaching and 2 years in industry with 16 years' experience in Research.
- Dr. Ganga Holi mam has presented and published 45 research papers in International Journals and conferences. She has done 20 certifications in trending technologies and also delivered guest talks and conducted workshops and training for faculties and students.
- She had carried out various roles like
 - Demonstrated the proficiency in developing sentiment analysis model to analyze the code reviews made by clients using NLP techniques.
 - Demonstrated proficiency in fine tuning the pretrained language Open AI's models.
 - Organized various Faculty Development Programs / Workshops with sponsorship from VTU, KSHEC, CSI, ISTE, BITES.
 - SPOC for Infosys Campus Connect Program.
 - Served as BOS Member for CSE, PDACE, Gulbarga, BEC Bagalkot.
 - Served as BOE member for CSE/ISE at VTU, Belagavi for the academic year 2019-20.
 - Reviewed Conference papers and served as Technical Committee member at International Conference. Reviewer for IGI Journal.



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PROFILE DETAILS

Name: Dr. Prashantha H S

Designation: Professor, CSE, KSIT, Bengaluru

Phone: 9902058362

Email: drhsprashanth@gmail.com



Short Biography:

- Currently serving as Professor CSE Department KSIT and previously served as Professor at NMIT, PESIT and EWIT (more than 21 years of experience).
- Graduated from ECE under BU, M. Tech from VTU and PhD from Anna University Chennai during 2012. Extensive experience in executing Teaching/Training courses related to the Signal Processing for Under-Graduate (UG) and Post-Graduate (PG) Programs (Handled most of the courses, framed syllabus and contents in the domain).
- Guiding Under-Graduate and Post-Graduate Projects related to Signal Processing and Machine learning (Guided more than 100 UG projects, more than 25 PG Projects). Guiding Research students for PhD in the area of Signal Processing and Machine Learning, Publishing papers in the area of Signal Processing and Machine Learning (Guided 2 students for PhD and guiding 3 students for PhD program under VTU).
- Published more than 80 papers in Reputed Journals and conferences with more than 450 citation and h index Of 10, research gate citations of 500.
- Served and serving as Reviewer for many reputed Journals and conferences including IEEE transactions, Jon WILEY, etc.
- Served and serving as Session chair for many conferences.
- Served and serving as Editorial Board member for Various Journals.
- He is a member of professional bodies such as IEEE (Senior Member), IEEE–Signal Processing Society, IEEE –Commuter Society, IET, ISSE, Fellow-IETE, IAENG, IFERP, MISTE, etc.



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PROFILE DETAILS

Name: Dr. Vijayalakshmi Mekali

Designation: Professor & Head, AIML, KSIT, Bengaluru

Phone: 9986168811

Email: vijayalaxmimekali@ksit.edu.in



Short Biography:

- Currently serving as Professor & Head in AIML Department, KSIT.
- Dr. Vijayalakshmi Mekali has completed B.E, M. Tech in computer science and Engineering from VTU and completed PhD in CSE from VTU. Had 12 + years of teaching experience and 2 years of industry experience. she has presented and published 15 + papers in international and national journal and conferences. She had guided 5 projects at master’s level and 27 batches at UG level.
- She has completed online course certification course on Python and also completed NPTEL course on data structures with Python.



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PROFILE DETAILS

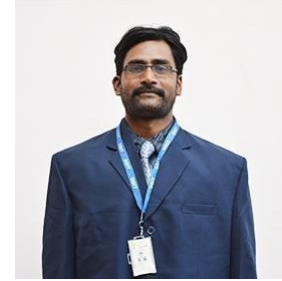
Name: Mr.Ravindranath K

Designation: Research Scholar

Organization: NIT, Trichy

Phone:97424 20155

Email:ravindranath321@gmail.com



Short Biography:

- 10+ years of experience in the Research and academic profession, spearheading diverse teams and people worked at NMIT and DBIT Bangalore.
- Bachelor of Engineering from Vivekananda Institute of Technology, Master of Technology from RNS Institute of Technology Bangalore and Pursuing Ph.D. (2019-Till date), National Institute of Technology Tiruchirappalli(Final stage of completion).
- Projects Completed: 1)Novel classification algorithms were built to classify the Histopathological images 2) Novel automated algorithms were developed using the deep learning tool datasets.
- On Going projects:
- Developing Hybrid models by combining convolutional neural networks and long short-term memory to efficiently classify CT Lung images provided by Kangwon medical university and hospital, South Korea, and Chonbuk National University and Hospital, South Korea
- Studies are being made to automatically diagnose MRI Breast Images from Kangwon medical university and hospital South Korea.
- Segmentation of Mediastinal images from CT chest images from Kangwon medical hospital,SouthKorea.
- Supported the University of Saskatchewan, Canada team forrib segmentation.
- Hardware implementation of LiteHistoNet on Raspberry Pi for reducing the number of parameters used by neural networks.
- Published research manuscripts in reputed science citation and Scopus-indexed journals



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PROFILE DETAILS

Name: Dr.Archana H R

Designation: Assistant Professor

Organization: BMSCE

Email: archanahr.ece@bmsce.ac.in



Short Biography:

- Dr. Archana H R has completed BE, M.Tech in Electronics from VTU and completed PhD in VLSI, SOC from VTU. She had 13 Years of Teaching experience and 1 year of industry experience.
- Dr. Archana has presented and published papers in 16 national and international conferences and journals of which one paper is a scopus indexed and yet another being published in Springer journal series.
- She had guided 5 projects at Masters level. She has interaction with people from different Semiconductor industries like Waferspace Technologies, Sevitech Systems Pvt Ltd, ON Semiconductors and Analog Micro Circuits to facilitate internship for Mtech students and attended IEEE Blended Learning Program.
- Have an Australian Patent grant and two Indian Patents Published.

Session Details

DAY 1: Session 1

Date: 30/10/2023

Topic: Inauguration of the Workshop

Schedule: 9 AM to 10.30 AM

Brief Details About the Session

The 3 days workshop program was designed to address the 7th semester syllabus student projects domain along with research opportunities in various domain such as Image Processing, Machine Learning with hands-on demonstrations using OpenCV.

The workshop was inaugurated by the dignitaries such as Dr. K. V. A. Balaji - Chief Executive Officer K. S Group of Institution, Dr. Dilip kumar K -Principal & Director, KSIT, Dr. Rekha B Venkatapur - Head Department of CS&E KSIT,

Dr.Pradeep Desai, Chairman Bengaluru chapter and Dr.Ganga Holi, Professor Department of CSE KSIT. The program was attended by 7th Sem CSE KSIT students.

The agenda of the Inaugural Session areas follows:

Inaugural Function Agenda

Welcome Address:	Mr. Vikas
Invocation Song:	Ms. Gagana
Lighting the Lamp:	Chief Guest and Dignitaries
Introduction of Chief Guest:	Ms. Shilpa
Address by CEO:	Dr.K.V.A. Balaji
Address by Principal:	Dr.Dilip KumarK
Vote of Thanks:	Ms. Hrithika

Few Glimpses From The Inaugural Session





KEY NOTE ADDRESS

Keynote Speaker: Dr. Pradeep V Desai, Chairman Bengaluru chapter, Director of KS Research and Innovation Foundation and Prof. of Computer Science and Engineering Department at KSIT

Schedule: 9:30AM to 10:30 AM



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3 Days Workshop on "Image Processing with OpenCV"

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DAY 1 SESSION 1

Date: 30/10/2023

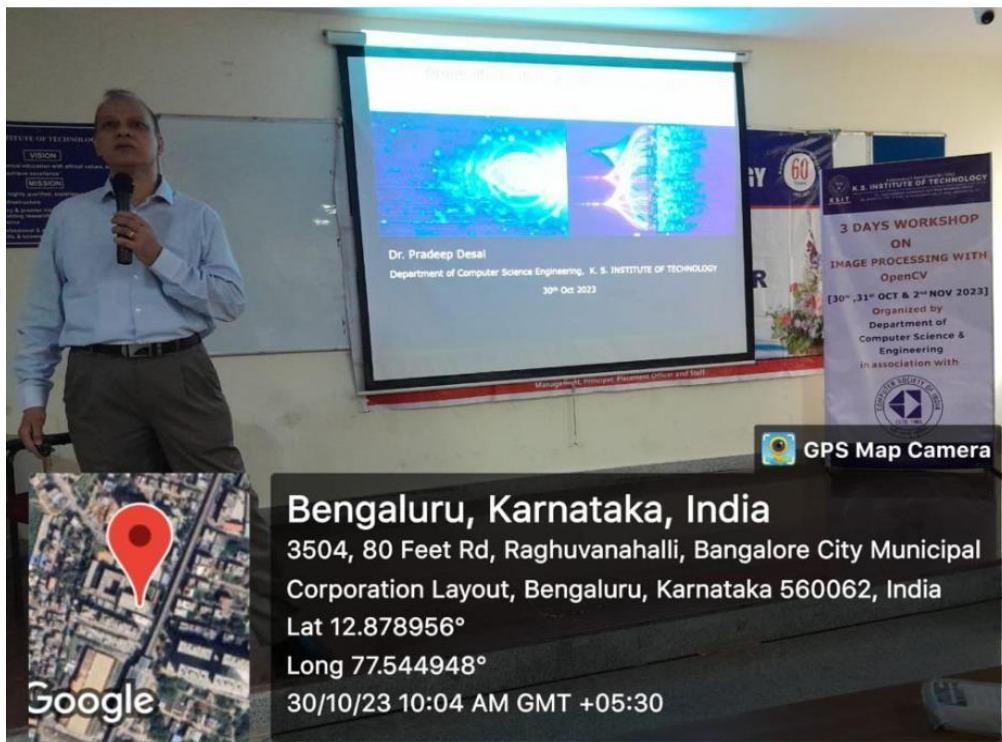
Time: 9:30 AM to 10:30AM

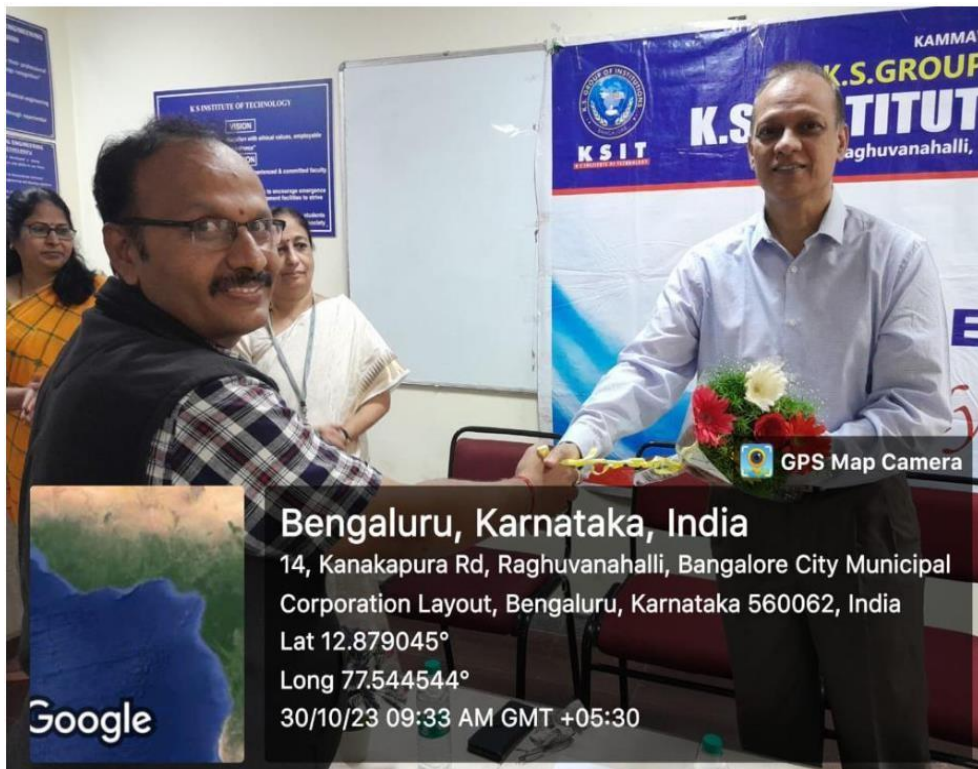
KEY NOTE ADDRESS

BY

DR. PRADEEP V DESAI

Chairman Bengaluru chapter





DAY 1: Session 2

Date: 30/10/2023

Speaker: Dr. Prashantha. H.S

Schedule: 11 AM to 12.30 PM

Topic: Inauguration of the Workshop

The speaker introduces about fundamentals of digital image processing, types of images and the applications of image processing.



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Department of Computer Science and Engineering
3 Days Workshop on “Image Processing with OpenCV”
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DAY 1 SESSION 2

Date: 30/10/2023

Time: 11:00 AM to 12:30PM

BY

DR. H S PRSHANTHA |

Professor, Department of CSE, KSIT

Bengaluru, Karnataka, India
TOWER-4, DHAMMANAGI SUMO LEAVES, 27/2, Kanakapura Rd,
Raghuvanahalli, Bangalore City Municipal Corporation Layout,
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Long 77.544956°
30/10/23 11:44 AM GMT +05:30

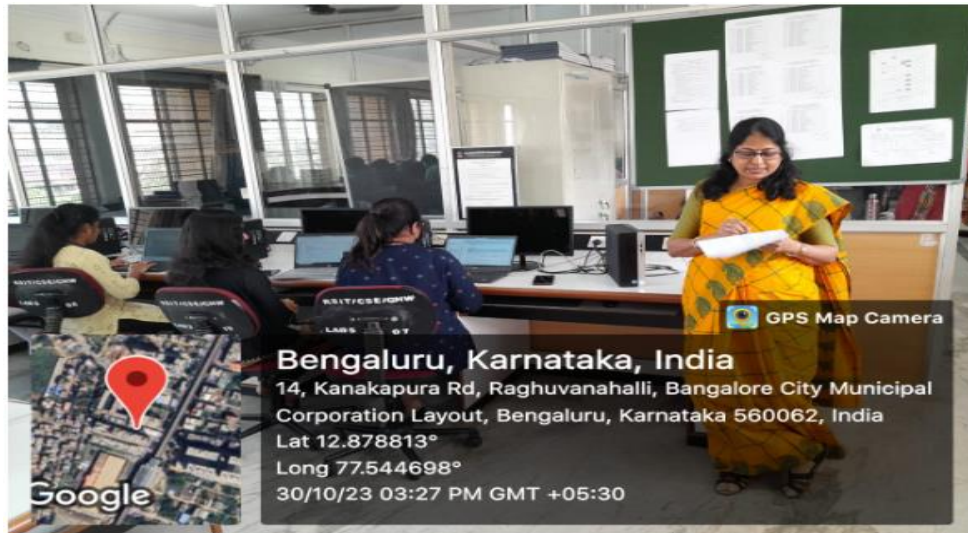
DAY 1: Session 3

Date: 30/10/2023

Speaker: Dr.Ganga Holi

Schedule: 1.30 PM to 3 PM

Topic: Hands on Session on OpenCV



DAY 2: Session 1

Date: 31/10/2023

Speaker: Dr.Ganga Holi

Schedule: 9 AM to 10.30 AM

Topic: Image Enhancement



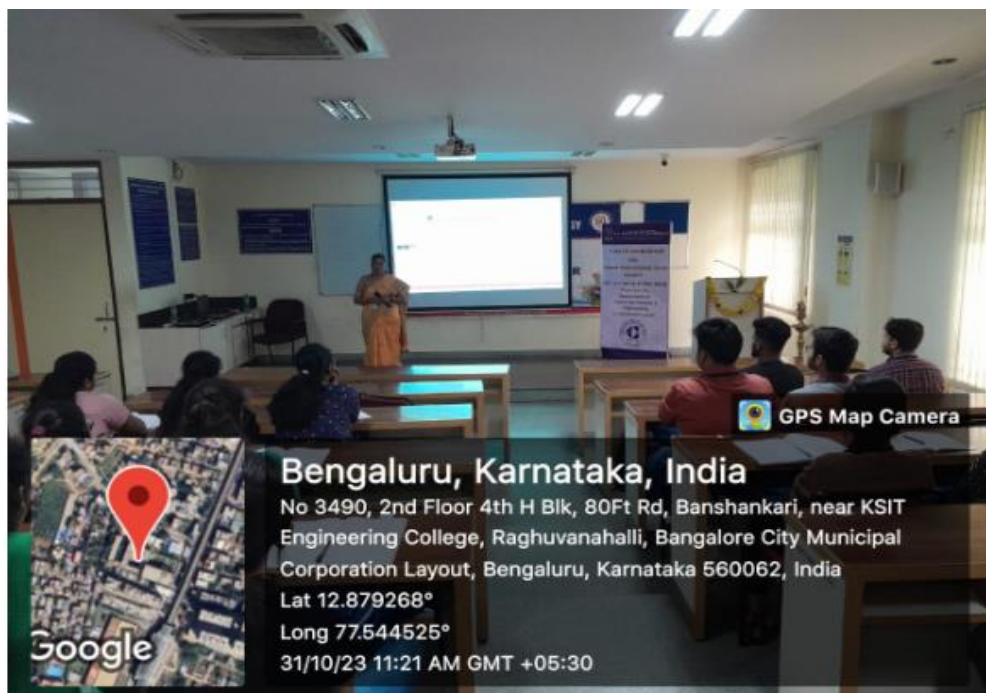
DAY 2: Session 2

Date: 31/10/2023

Speaker: Dr. Vijayalaxmi Mekali

Schedule: 11 AM to 12.30 PM

Topic: Image segmentation and Morphological operations



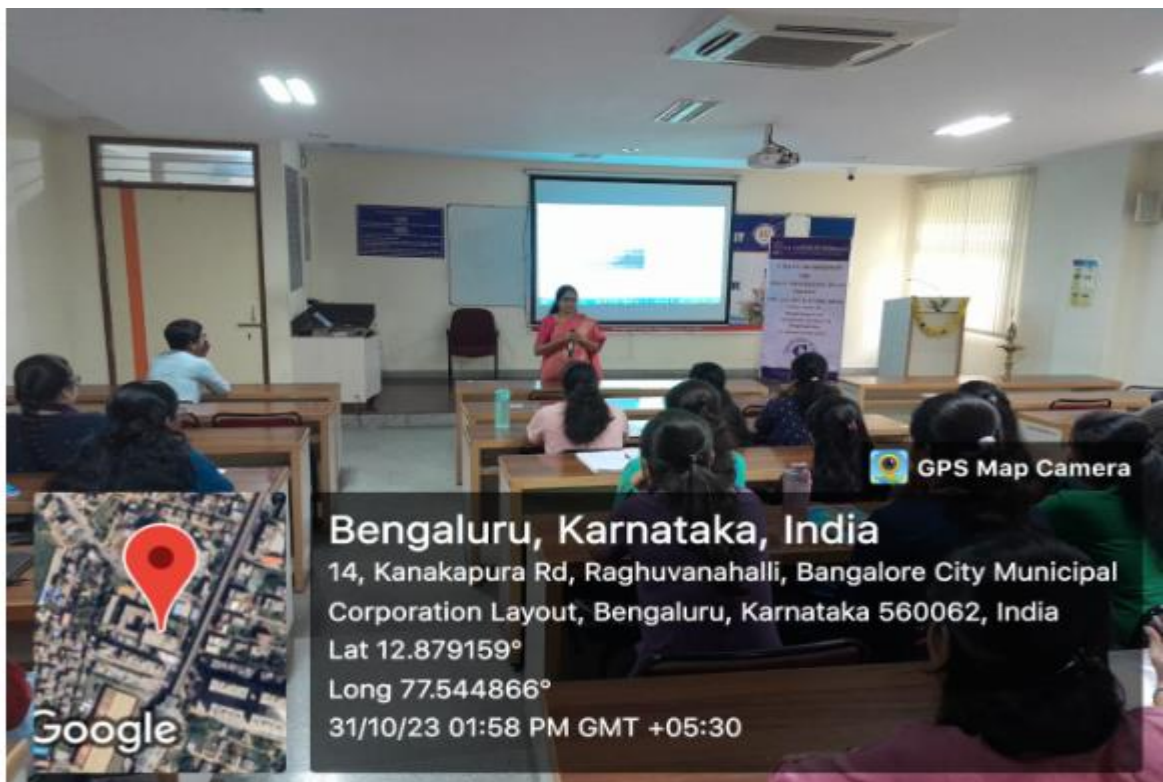
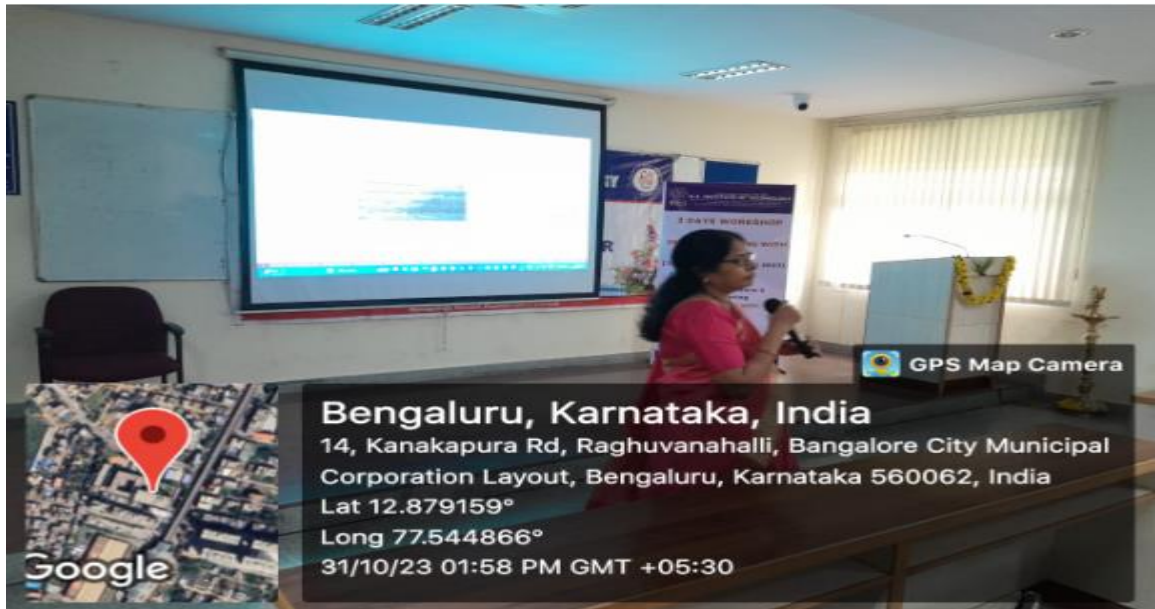
DAY 2: Session 3

Date: 31/10/2023

Speaker: Dr. Ganga Holi

Schedule: 1.30 PM to 3 PM

Topic: Hands on Session on OpenCV- Image Enhancement



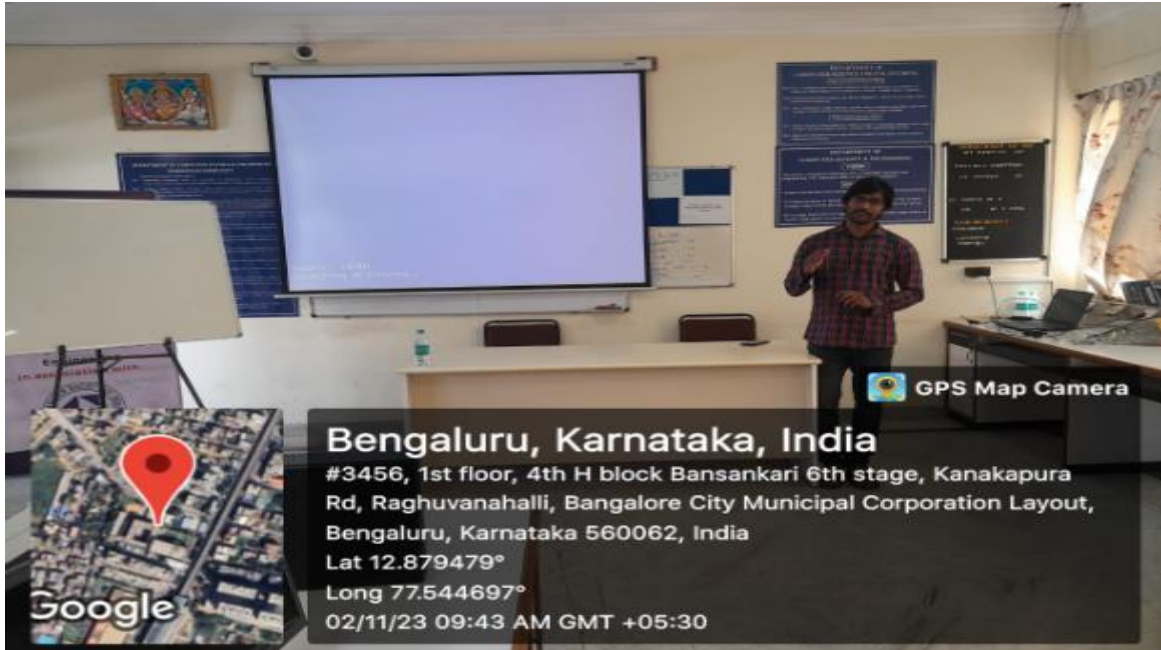
DAY 3: Session 1

Date: 02/11/2023

Speaker: Ravindranath K

Schedule: 9 AM to 10.30 AM

Topic: Machine learning for DIP Applications



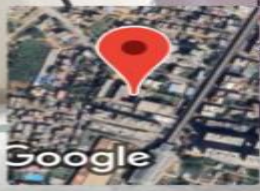
DAY 3: Session 2

Date: 02/11/2023

Speaker: Dr .Arachana

Schedule: 11 AM to 12.30 PM

Topic: Image restoration and Image filtering



Bengaluru, Karnataka, India
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Lat 12.87935°
Long 77.54453°
02/11/23 11:24 AM GMT +05:30



Bengaluru, Karnataka, India
No 3490, 2nd Floor 4th H Blk, 80Ft Rd, Banshankari, near KSIT Engineering College, Raghuvanahalli, Bangalore City Municipal Corporation Layout, Bengaluru, Karnataka 560062, India
Lat 12.879189°
Long 77.544462°
02/11/23 11:47 AM GMT +05:30

DAY 3: Session 3

Date: 02/11/2023

Topic: Mini Project on Image Processing using OpenCV

Schedule: 1.30 PM to 3 PM



Valedictory and Certificate Distribution





Assessment on_Image_Processing_Topics(Workshop topics)

Assessment

1. Email *

2. Name

1 point

3. USN

1 point

Dr. Prashanth H S

4. 1. _____ determines the quality of a digital image

1 point

Mark only one oval.

- The discrete gray levels
- The number of samples
- The discrete gray levels & number of samples
- None of the mentioned

5. 2. Which of the following tool is used in tasks such as zooming, shrinking, rotating? 1 point

Mark only one oval.

- Filters
- Sampling
- Interpolation
- None of the Mentioned

6. 3. What is the first step in the process of Image Processing? 1 point

Mark only one oval.

- Segmentation
- Image acquisition
- Image enhancement
- Image restoration

7. 4. What is the undesirable feature in the case of nearest neighbour Interpolation? 1 point

Mark only one oval.

- Checkerboard effect
- Ridging effect
- False contouring effect
- Aliasing effect

8. 5. Which of the following is not process of image processing?

1 point

Mark only one oval.

- High level
- Last level
- Low level
- Mid level

9. 6. The spatial resolution of the image is determined by

1 point

Mark only one oval.

- Contrast
- Quantization
- Sampling
- Dynamic range

10. 7. The spatial coordinate of the image are proportional to

1 point

Mark only one oval.

- position
- brightness
- contrast
- noise

11. 8. With respect to traditional TV, which aspect ratio is correct

1 point

Mark only one oval.

- 4:3
- 3:4
- 1:2
- 2:1

12. 9. With Respect to Video Graphics Array, which is correct?

1 point

Mark only one oval.

- 320 X 240
- 640 X 480
- 480 X 640
- 480 X 320

13. 10. Find the number of bits required to store a 2048 X 2048 image with 256 gray levels

1 point

Mark only one oval.

- 17384 Bytes
- 18834 Bytes
- 16384 Bytes
- 16184 Bytes

Dr. Ganga Holi

14. 1. **Which of the following are the basic functions of digital image processing?**

1 point

Mark only one oval.

- Image Enhancement
- Noise Reduction
- Distortion
- All the above

15. 2 **Image enhancement technique benefit in terms of _____?**

1 point

Mark only one oval.

- Visualization
- Remove Noise
- Clear Image by Deblurring
- all the above

16. 3. **. Image processing in image enhancement extracts hidden information using**

1 point

Mark only one oval.

- Sharpening
- Smoothing
- edges extraction
- All of the above

17. 4. _____ is called unwanted zones in image?

1 point

Mark only one oval.

- Noise
- Music
- Sound
- All of the above

18. 5. Which of the following is the software used in digital image processing?

1 point

Mark only one oval.

- C
- HTML
- OpenCV Python
- None of the above

19. 6. The output of a smoothing, linear spatial filtering is a _____ of the pixels contained in the neighbourhood of the filter mask.

1 point

Mark only one oval.

- Dot Product
- Product
- Average
- Sum

20. 7. Which of the following is the primary objective of sharpening of an image? 1 point

Mark only one oval.

- Increase the brightness of the image
- Blurring the image
- Highlight fine details in the image
- None of the above

21. 8. Using gray-level transformation, the basic function linearity deals with which of the following transformation?. 1 point

Mark only one oval.

- Negative and identity transformations
- Log and inverse log transformations
- Power Law Transformation
- Noen of these

22. 9. If r be the gray-level of image before processing and s after processing then which expression defines the negative transformation, for the gray-level in the range $[0, L - 1]$? 1 point

Mark only one oval.

- $s = cr^y$, c and y are positive constant
- $s = c(\log(1 + r))$, c is constant and $r > 0$
- $s = L - 1 - r$
- None of the above

23. 10. In neighborhood operations working is being done with the value of image pixel in the neighborhood and the corresponding value of a sub image that has same dimension as neighborhood. The subn image is referred as _____ 1 point

Mark only one oval.

- Mask
- Template
- Filter
- All of the above

Mr. Ravindranath K

24. 1. In which of the scenarios traditional image processing applications are best suited 1 point

Mark only one oval.

- Rule - based applications
- when dataset is abundantly available
- when we want to automate the application
- reward based applications

25. 2. In resource constrained applications the best suited application is 1 point

Mark only one oval.

- Machine learning
- Deep learning
- Reinforcement learning
- Traditional Image Processing

26. 3. Reward based mechanism is used in

1 point

Mark only one oval.

- Supervised Learning
- Un-Supervised Learning
- Reinforcement Learning
- Semi-supervised Learning

27. 4. The quality of results in Machine learning depends on the following parameters

1 point

Mark only one oval.

- Feature Engineering
- Data handling mechanisms
- Structure of the data
- Fine tuning the features

28. 5. when size of the dataset is limited and we want to build a automated system the best suited method is

1 point

Mark only one oval.

- Deep Learning
- Image Processing
- Reinforcement Learning

29. 6. A model is built to identify the sparrow birds flying across the road and the model is deployed. The developer has forgot to train the model do detect the black sparrows (minority/less number) how to rectify this problem after deployment. 1 point

Mark only one oval.

- collect more data on black sparrows and retrain the model and deploy the new model
- collect more data on black sparrows and retrain the model by addressing the imbalance dataset and deploy the new model
- collect more data on black sparrows and retrain the model by addressing the imbalance dataset and deploy the new model by introducing the continual learning
- just ignore as the new deployment is going to cost too much on your company as the occurrence of black sparrows is very minimal

30. 7. we want to develop a segmentation methodology to extract the edges of the iris for 10 images the best suited method is 1 point

Mark only one oval.

- Machine Learning
- Deep Learning
- Reinforcement Learning
- Image processing principles

31. 8. We choose deep learning applications when 1 point

Mark only one oval.

- Sufficiently large dataset is available
- Resources are not a constraint
- Fully automatic application is desired
- All of the above

32. 9. The performance of the developed deep learning model mainly depends on 1 point

Mark only one oval.

- Size of the dataset
- Size of the model
- Hyper-parameters
- Pre-processing of the dataset

33. 10. Lets take a situation to develop a sophisticated video game the best suited method is 1 point

Mark only one oval.

- Reinforcement Learning
- Machine Learning
- Deep Learning
- Deep Reinforcement Learning

Dr. Archana H R

Image Restoration & 2D DFT Basics

34. 1. Low frequency signals are passed by: 1 point

Mark only one oval.

- High pass Filter
- Band pass filter
- Low pass filter
- Band reject filter
- Other: _____

35. 2. Main source of Noise arises during:

1 point

Mark only one oval.

- Destruction
- Degradation
- Restoration
- Acquisition
- Other: _____

36. 3. Periodic Noises arise from

1 point

Mark only one oval.

- mechanical Interference
- Electrical Interference
- Beta Interference
- Gamma Interference
- Other: _____

37. 4. Speckle noise is also called

1 point

Mark only one oval.

- White Noise
- Impulse noise
- Multiplicative noise
- Additive noise
- Other: _____

38. 5. Salt & Pepper noise is also called

1 point

Mark only one oval.

- Impulse noise
- Shot noise
- Binary noise
- All of the above
- Other: _____

39. 6. Median filter is a case of

1 point

Mark only one oval.

- Adaptive filtering
- Rank Order filtering
- Geometric mean filtering
- None of the above
- Other: _____

40. 7. Which method is suitable to eliminate Gaussian noise with high variance

1 point

Mark only one oval.

- Adaptive filtering
- Average Filtering
- Median Filtering
- Band Reject Filtering
- Other: _____

41. 8. Which filtering technique is used to remove periodic noise

1 point

Mark only one oval.

- Band Reject filter
- Adaptive filter
- Notch Filter
- Both a and c
- Other: _____

42. 9. DFT abbreviates

1 point

Mark only one oval.

- Digital Frequency Transform
- Discrete Frequency Transform
- Discrete Time Fourier Transform
- Digital Time Fourier Transform
- Other: _____

43. 10. For Computer applications which of these computation process is preferred.

1 point

Mark only one oval.

- DFT
- FFT
- Both a & b
- None of the above
- Other: _____

Assessment Score

Timestamp	Email Address	Score	Name
06-11-2023 16:04	jeevan8055indian@gmail.com	24 / 42	Jeevan
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

IN ASSOCIATION WITH CSI



CERTIFICATE

OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

MAHIM SUBHASH AKHWAT

In 3 Days workshop on IMAGE PROCESSING WITH OpenCV organized by Department of Computer Science and Engineering at K. S. Institute of Technology on 30th, 31st OCT & 2nd NOV 2023.

Dr. Rekha B. Venkatapur

DR. REKHA B. VENKATAPUR
Professor & HOD

Dr. Dilip Kumar K

Dr. DILIP KUMAR K
Principal / Director

3 Days Workshop on "Image Processing with OpenCV"

30/10/2023 Day 1 Session 1 (9:00am to 10:30am):

Dr. Pradeep Desai, Chairman Bengaluru Chapter

* Indicates required question

1. Student Name *

2. USN *

3. How would you rate the session? was the topic relevant? *

Mark only one oval.

- Strongly Agree
- Agree
- Strongly Disagree
- Disagree

4. The information and skills presented were relevant and useful. *

Mark only one oval.

- Strongly Agree
- Agree
- Strongly Disagree
- Disagree

5. How would you rate the level and amount of information provided? *

Mark only one oval.

- Too Much
- About Right
- Not Enough

6. How would you rate the resource person? The resource person was knowledgeable, clear and professional. *

Mark only one oval.

- Strongly Agree
- Agree
- Strongly Disagree
- Disagree

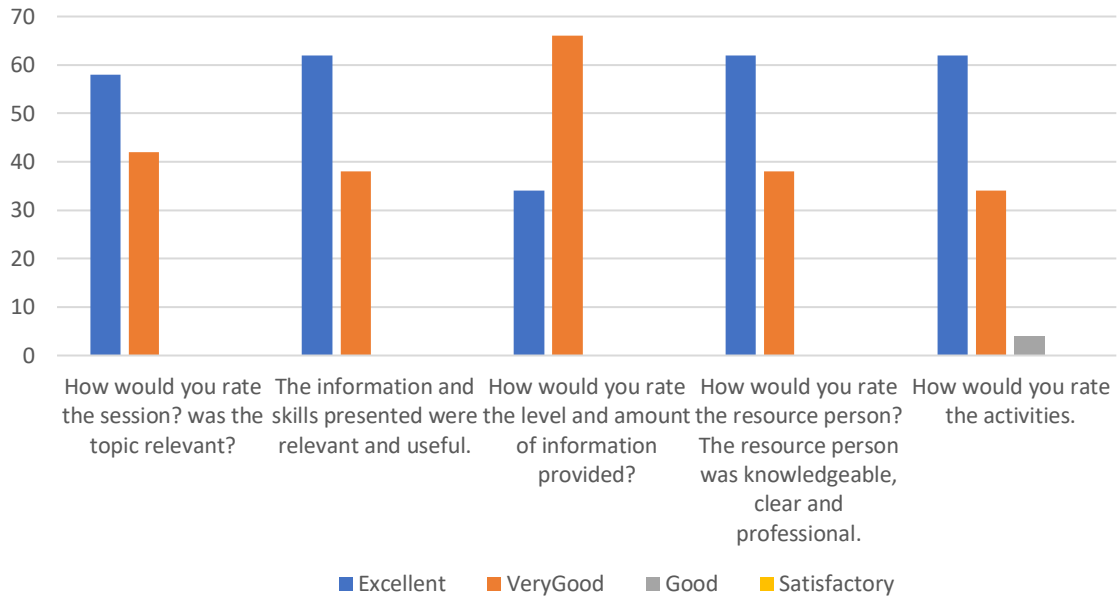
7. How would you rate the activities. *

Mark only one oval.

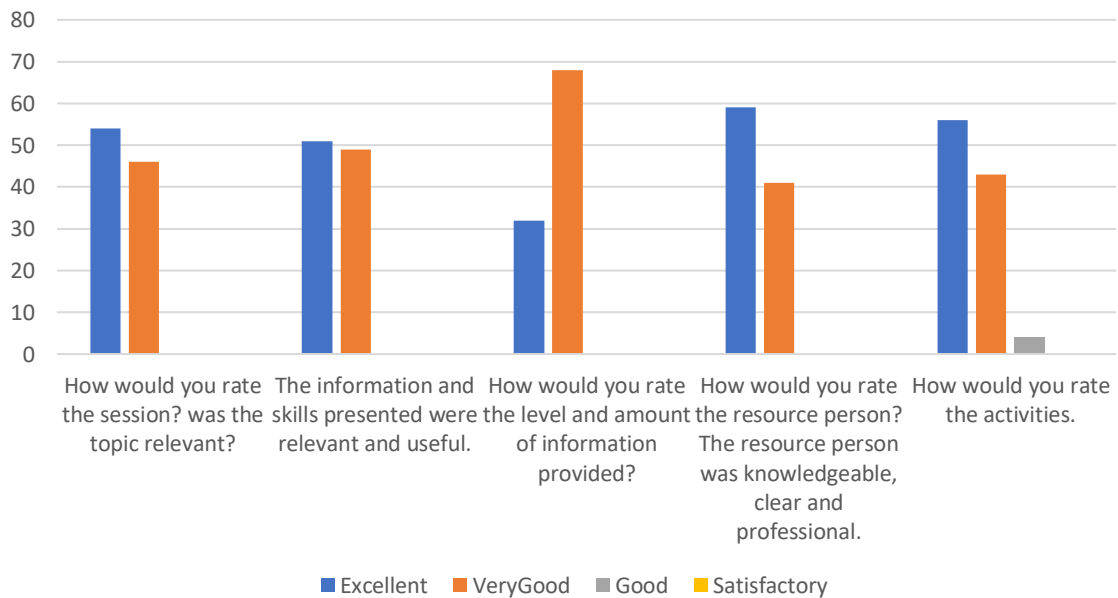
- Excellent
- Very Good
- Good
- Poor

8. Comments/ Suggestions *

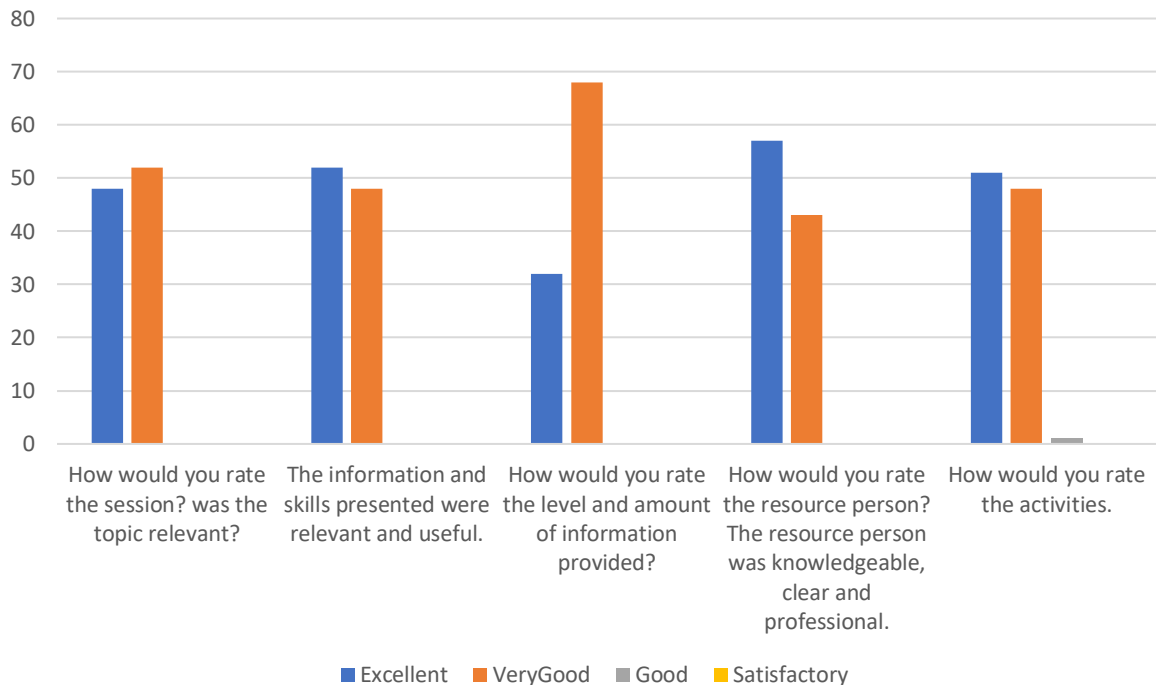
DAY 1 : SESSION 1 FEEDBACK



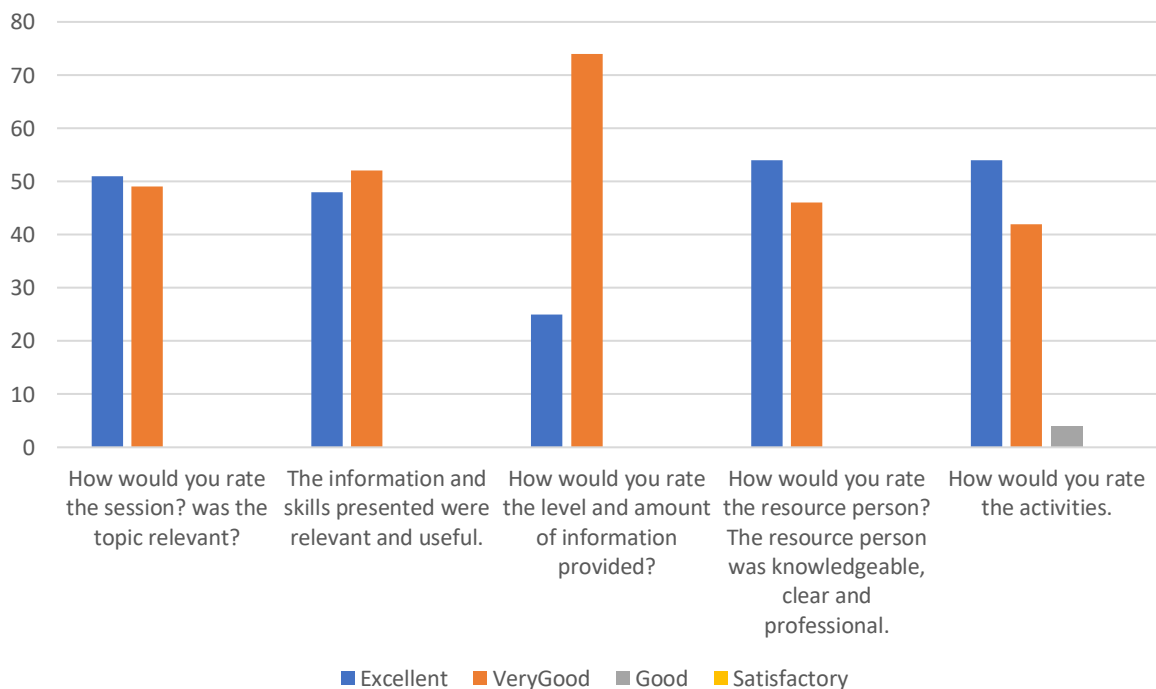
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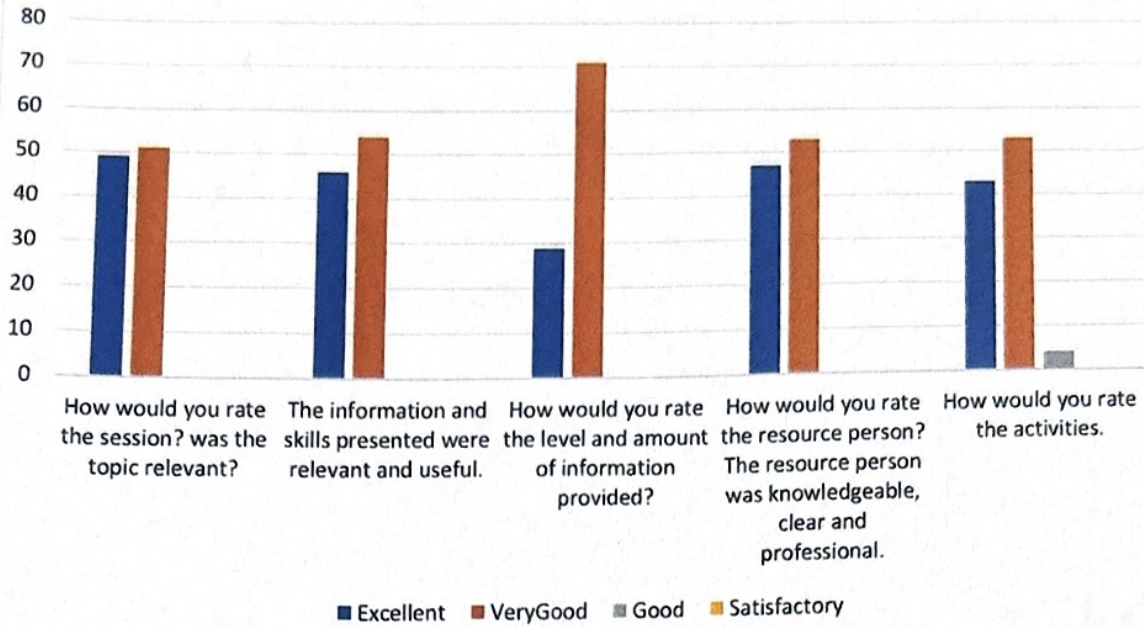
DAY 1 : SESSION 3/ DAY 2 : SESSION 2 &3 FEEDBACK



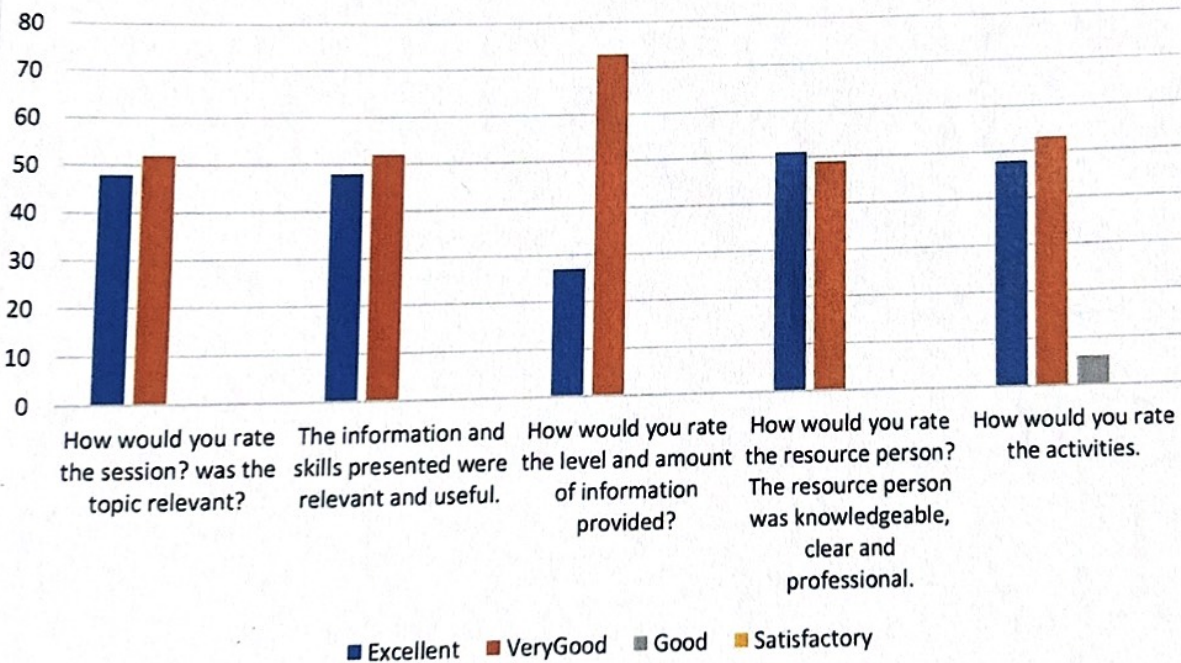
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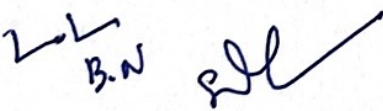


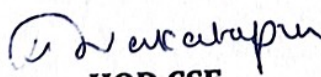
DAY 3 : SESSION 1 FEEDBACK




DAY 3 : SESSION 2 FEEDBACK




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coordinator


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