

Center for CCTV Research (CCCTVR)
5 - Days Certification Course on
An Overview of Video Surveillance Systems
Date: 30th Aug- 3rd Sep, 2021

The Centre for CCTV Research, RVCE organized a five days certification course on “An Overview of Video Surveillance Systems” for students and faculty of science and technical institutions in collaboration with its industry partners COM-SUR, NFSU, Mistral Solutions, Mialo Technologies and TechConPro. Total 43 participants registered for this course.

Schedule

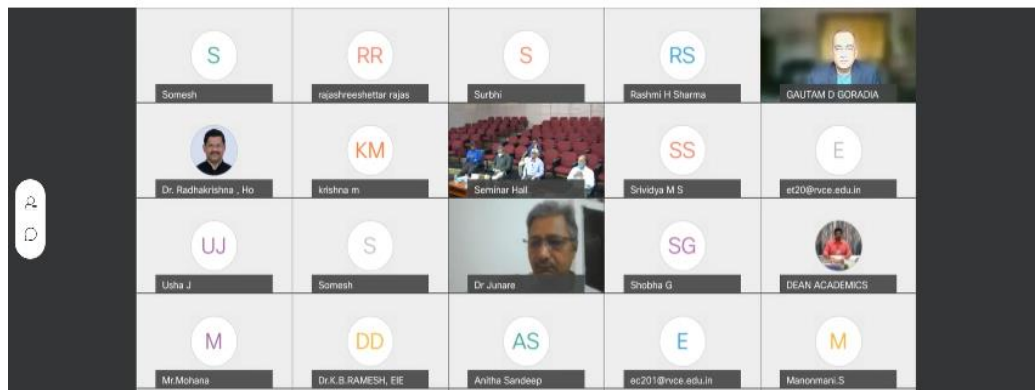
Date and Day	FN Session (10.00 AM – 12.00 NOON)	AN Session 2 (2.30 PM – 4.30 PM)
Day-1 30-08-2021	Inaugural session (30 min) Session 1: Video Surveillance Techno-Management and CCCTVR Overview Resource person: Shri Sanjay Sahay	Session 2: An Overview of Video Surveillance systems (2:30 pm to 4:00 pm) Resource person: Shri T Shankar
Day-2 31-08-2021	Session 3: Communications and Networking Aspects in CCTV Installations (10:00am- 12:00 noon) Resource person: Dr Ravishankar, Dr. Kiran and Dr Roopa	Session 4: : MATLAB and its application for Image and Video processing (2:30 pm – 4:00 pm) Resource person: Dr. Ramakanth Kumar P
Day-3 01-09-2021	Session 5: Introduction to CCTV Video Footage Auditing (10:00 am – 10:45 am) Resource person: Shri Gautam Goradia	Session 7: Foundation module-COM-SUR business version (2:30 pm- 4:30 pm) Resource person: Team COM-SUR with recorded videos and demo

	Session 6: Fundamental module - COM-SUR- Home version (10:45 am- 12:00 noon) Resource person: Team COM-SUR with recorded videos and demo	
Day-4 02-09-2021	Session 8: Advanced Module – COM-SUR Ultima version (10:00am- 12:00 noon) Resource person: Team COM-SUR with recorded videos and demo	Session 9: Advanced Module – COM-SUR Ultima version (2:30 pm- 4:30 pm) Resource person: Team COM-SUR with recorded videos and demo
Day-5 03-09-2021	Session 10: CCTV Forensics- Research Prospects (10:00 am – 11:00 am) Resource person: Dr Surbhi Mathur Session 11: AI on the Edge (11:00 am – 12:00 noon) Resource person: Mr. Vinod Mialo Technologies	Session 12: Overview of Video Analytics (2:30pm – 3:30pm) Resource person: Mr. Amanullah Khan Mistral Solutions Closing session: Participant feedback, Valedictory session

DAY 1 – Inaugural Session

The inaugural programme was presided by Dr. K N Subramanya Principal RVCE in presence of Shri. Sanjay Sahay-CCTV Research Center founder and mentor, Shri. T Shankar- Head Projects and Research CCTVR, Dr. Ramakanth Kumar P Head CSE, Dr. Sreelakshmi K Head ETE, Prof. Neethu, Dr. Azra Nasreen, Dr. Hemavathy, Dr. Roopa from RVCE.

AN OVERVIEW OF VIDEO SURVEILLANCE SYSTEMS-202... [↓](#)



Dr. S O Junare from National Forensic Science University Gujarat along with Dr. Surbhi Mathur, Shri. Gautam Goradia, Mrs. Rashmi and all other stake holders, participants, RVCE HoDs and Deans were present online for the inaugural function.

Session 1: Video Surveillance Techno-Management and CCCTVR Overview

Resource person: Shri. Sanjay Sahay



Shri Sanjay Sahay delivered the keynote address after the inaugural session. A comprehensive review video surveillance system was presented. Existing CCTV infrastructure of the country, need for national CCTV protocol and standardized protocols to all video surveillance systems was highlighted. The session was concluded with the brief overview of research carried out at the centre.



Session 2: An Overview of Video Surveillance systems (2:30 pm to 4:00 pm)

Resource Person: Shri. T Shankar

This Session briefed about all the components of video surveillance system further detailing about the camera optics and electronics. Different categories of cameras with their properties and operation were discussed and compared in detail.

AN OVERVIEW OF VIDEO SURVEILLANCE SYSTEMS

*T.SHANKAR, HEAD (PROJECTS & RESEARCH),
CENTRE FOR CCTV RESEARCH*

Digital Video Recorders, Network Video Recorders, storage, power aspects of CCTV surveillance system's hardware and software was explained.

DAY 2

Session 3: Communications and Networking Aspects in CCTV Installations
(10:00am- 12:00 noon)

Resource person: Dr. Ravi Shankar, Dr. Kiran and Dr. Roopa

The first session was on Communications and Networking Aspects in CCTV Installations delivered by Dr. Ravishankar S, visiting Professor RVCE along with Dr. Kiran, Associate Professor and Dr. Roopa J, Assistant Professor Dept. of ECE RVCE. An in-depth coverage of communication aspects detailing networks, protocols, architecture of CCTV infrastructure was carried out by the team.

Session 4: MATLAB and its application for Image and video processing

(2:30pm – 4:00 pm)

Resource person: Dr. Ramakanth Kumar P

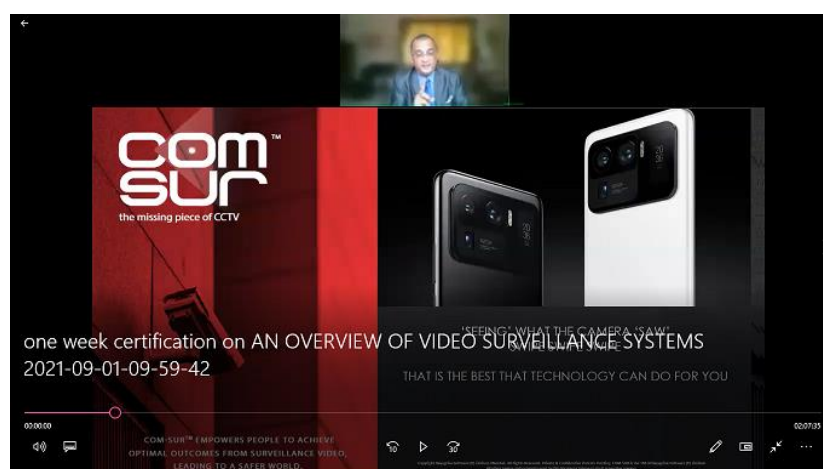
Session 4 was started with introduction to digital image processing such as sampling, quantization, convolution etc. A complete walk through of processing of images using MATLAB was given. Starting from creating an application to detailing the functions present in different tool boxes present in the software. The session covered the overview of fundamental to advanced concepts of image processing.

DAY 3

Session 5: Introduction to CCTV Video Footage Auditing (10:00 am – 10:45 am)

Resource person: Shri Gautam Goradia

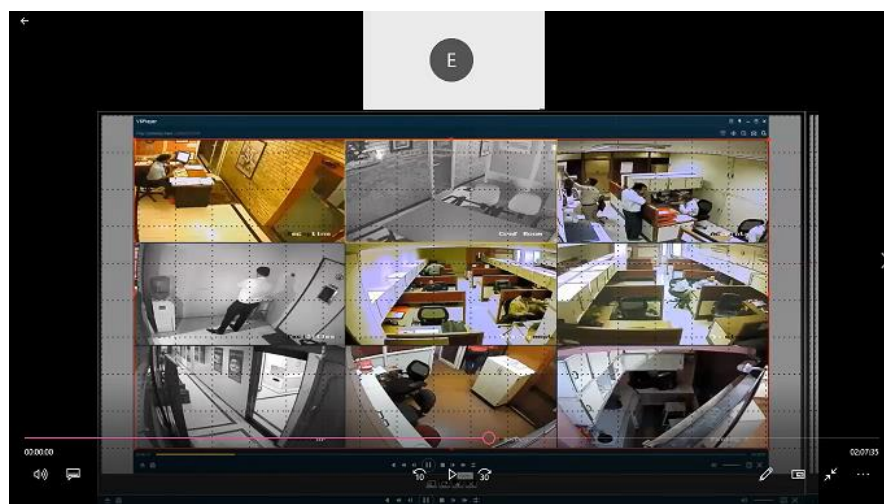
Day-3 session was started by Dr. Roopa J, Dept. of ECE, with welcoming the gathering and day speaker Shri. Gautam Goradia on COMSUR the video analytics. Introduction to CCTV Video Footage Auditing was presented by Shri. Gautam Goradia from 10.00am to 10.45am with a brief introduction to use the tool COMSUR for editing the video footage auditing, finding and generating intelligent report in different forms making easy the user. There were almost 30 participants during morning session and 20 participants in the afternoon session.



Session 6 and 7: Foundation module-COM-SUR business version (2:30 pm- 4:30 pm)

Resource person: Team COM-SUR with recorded videos and demo

In later session, the tool exposure was given that was recorded session by expertise from COMSUR itself. Detailed video was played on using of Foundation module-COM-SUR business version and later Fundamental module -COMSUR- Home version that went on till 5pm with a lunch break from 12.30 -2.15pm. An overview of video surveillance system, consisting of crime, fraud, and loss prevention and including faster solving of crime. Enhanced home land security through community policing and crowd sourced surveillance. Standardized way to work with video irrespective of camera type and brand. The presentation consisted of showcasing COMSUR images that could be vital fodder to enrich AI models.



Day 4

Session 8: Advanced Module – COM SUR Ultima version (10:00am- 12:00 noon)

Resource person: Team COM-SUR with recorded videos and demo

Shri Gautam Goradia gave an introduction for few minutes on the advanced module software - Ultima version and Videos numbered from 2 to 4 was played in the session. Video recorded demos on manual capturing of visual information,

converting line or recorded video in to images and about COMSURs smart media player were played. It was a very interactive and interesting session and any questions from the audience were answered by Mr. Shakthiman and by Sri Gautam sir.

Session 9: Advanced Module – COM-SUR Ultima version (2:30 pm- 4:30 pm)

Resource person: Team COM-SUR with recorded videos and demo.

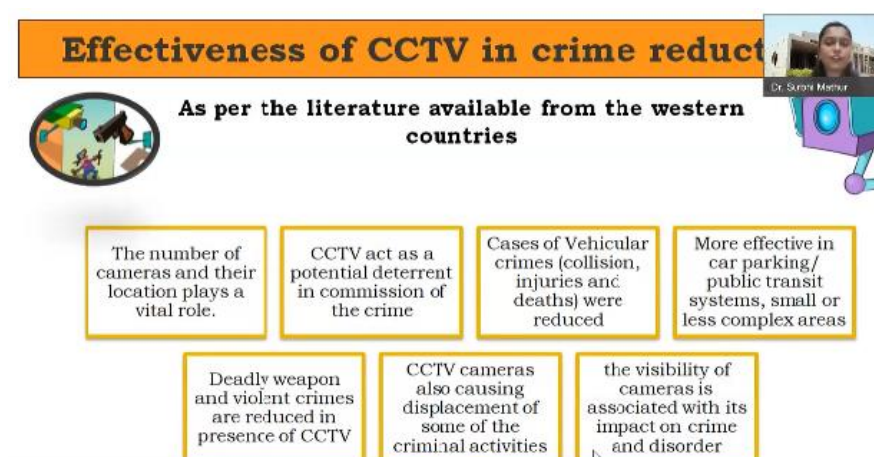
In the afternoon session second part of the COMSURs smart media player, Batch video frame extractor tool, creating and searching for report and MIS (Business Intelligence) were played. Videos numbered from 4 to 8 were played in the session. It was a very interactive and interesting session and any questions from the audience were answered by Sri Gautam sir.

A detailed explanation of all features and operations on the advanced module - Ultima Version of COMSUR product was delivered in the recorded video. All operational functionalities were clearly explained; Operations on RIP-IT, Audit report generation, Search incident report, MIS report etc., Auto pilot option, Book marking option, COMSUR settings were explained.

Day 5

Session 10: CCTV Forensics- Research Prospects (10:00 am – 11:00 am)

Resource person: Dr. Surbhi Mathur

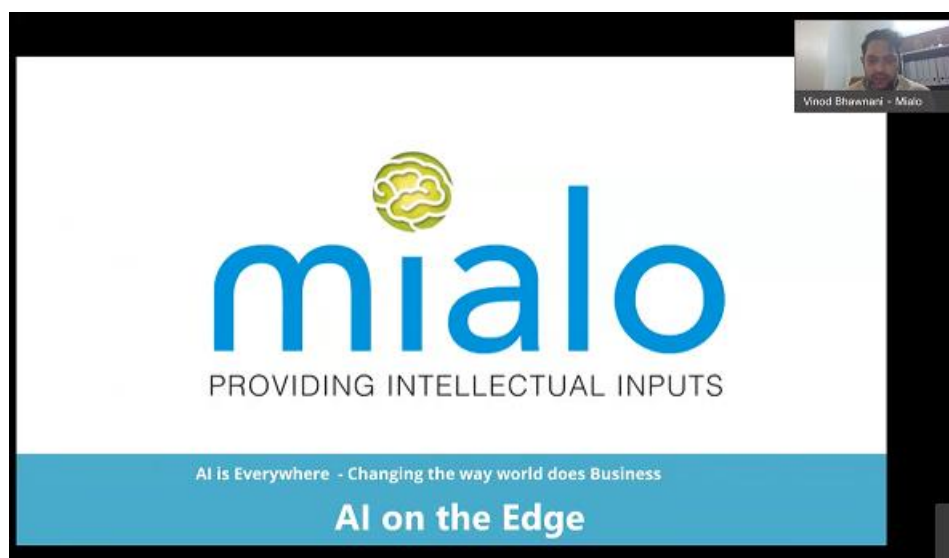


Importance of forensics in today's world to control crime rate and to punish the guilty were highlighted in the session. The steps that have been taken by various Government agencies with respect to standardisation of video surveillance and its effectiveness at both national and international level were briefed.

Session 11: AI on the Edge (11:00 am – 12:00 noon)

Resource person: Mr. Vinod, Mialo Technologies

The importance and benefits of edge computing were delivered in this session. Use of Artificial Intelligence and Machine learning on edge devices were demonstrated. Comparison of conventional computing on servers and the same on edge devices were briefed.

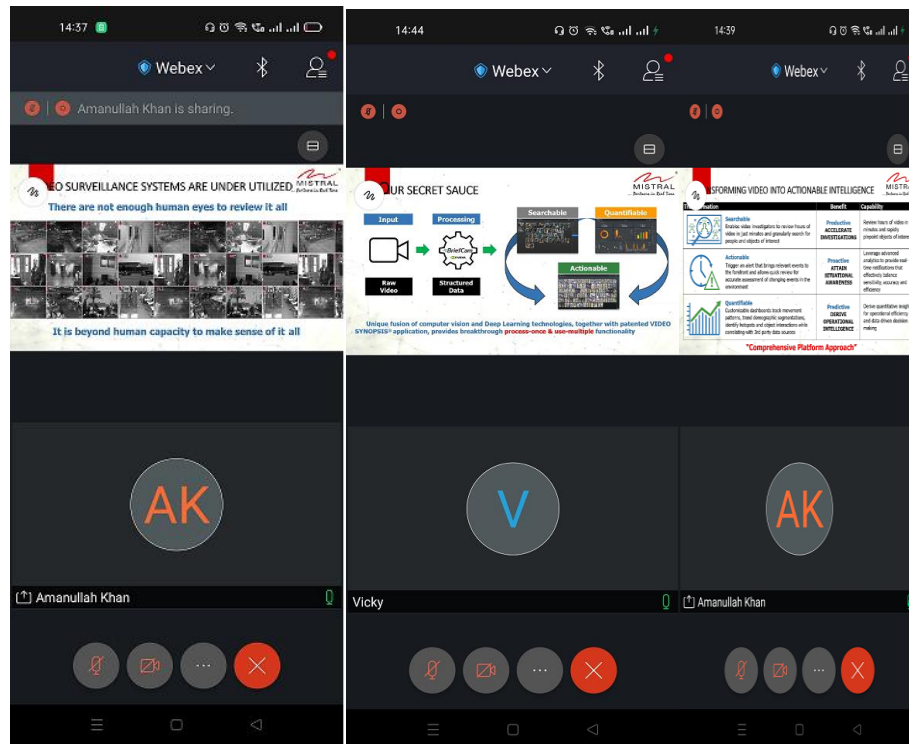


Session 12: Overview of Video Analytics (2:30pm – 3:30pm)

Resource person: Mr. Amanullah Khan, Mistral Solutions

It was indeed an interesting Demo Session about BriefCam by Mr. Amanulla khan covering various aspects from facial recognition to object tracking. The processes of Detect track extract classify and catalog was incredible. The few interesting takeaways are object tracking, full scene coverage, Video Synopsis, smart synopsis,

license plate recognition, a car moving in the wrong direction, and multiple scenarios of Video investigation with respect to Shoplifting, consumer behaviour, contact tracing, office breaking, heat map etc.



Closing session: Participant feedback followed by Vote of Thanks



Brochure

Rashtriya Sikshana Samithi Trust
RV COLLEGE OF ENGINEERING®
(Autonomous Institution Affiliated to VTU, Belagavi)
Bengaluru- 560059, Karnataka, INDIA.

RV College of Engineering (RVCE) established in 1963 is one of the earliest self-financing engineering colleges in the country. RVCE is today recognized as one of India's leading technical institutions. It has established Centres of Excellence in Macroelectronics, Internet of Things, AI & ML, e-Mobility, Automotive Mechatronics, Quantum Computing, CCTV Research, Smart Antenna Systems and Computational Genomics.

About Center for CCTV Research

The Center for CCTV Research, RVCE was established in February 2021. This multi-stakeholder research facility is set in collaboration with COM-SUR, NFSU, TechConPro, Videonetics, Mistral Solutions and Mialo Technologies. The center aims to fulfil the gap of knowledge, practice, protocols, testing, experiments, training, certification, expertise etc.

MoUs Signed

- National Forensics Sciences University, Gujarat.
- COM-SUR, Mumbai.

NFSU was established by an act passed in year 2020 by Parliament of India, to facilitate and promote studies in conjunction with applied behavioral science studies, law, criminology and other allied areas and technology. With NAAC accreditation with "A" grade from Ministry of Human Resource Management, Government of India, NFSU is established with an objective of fulfilling the acute shortage against increasing demand of forensic experts in the country and around the world.



A Center of Competence

Is Organizing
5 - DAYS CERTIFICATION COURSE
ON
AN OVERVIEW OF VIDEO
SURVEILLANCE SYSTEMS

30th Aug - 3rd Sept 2021

In Collaboration with



Course Contents

- Video surveillance systems
- Video Analytics
- Auditing of CCTV footages
- CCTV Forensics

Course Schedule

https://drive.google.com/file/d/1o_DMivTA8FgZmC8pycSATL_DfY81051/view?usp=sharing

Resource Persons

Experts from Academia and Industry like NFSU, COM-SUR, TechConPro, Videonetics, Mistral Solutions and Mialo Technologies will deliver the talks and demo.

Who can attend?

Students and Faculty of Science/Technical Institutes.

Registration Link

<https://forms.gle/zQkfGzEyupiCeg3W8>

Introductory Fee: ₹ 590/- (Inclusive of GST)

Payment Link

https://pages.razorpay.com/pl_HjqDupiG7bUh21/view

Founder and Mentor CCCTVR

Shri. Sanjay Sahay, Ex.IPS

Advisory Committee

Dr. J M Vyas, Vice Chancellor, NFSU
Dr. K N Subramanya, Principal, RVCE
Dr. Ramakanth Kumar P, HoD CSE
Dr. K. Sreelakshmi, HoD E&T
Shri. T Shankar, Head Research & Projects CCCTVR
Shri. Gautam Goradia, CEO&MD, Hayagriva Software, Mumbai

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