



# Dr. M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE (Deemed to be University)

Maduravoyal, Chennai - 600 095. Tamilnadu, India.

(An ISO 9001-2015 Certified Institution)



## MGR ASSOCIATION FOR GREAT INNOVATIVE CREATORS

### Department of Electronics and Communication Engineering

Event Title	FDP on " Recent Advances and Trends of		
Objective of Event	The objective of recent advances in Cyber-Physical Systems (CPS) in healthcare is to enhance patient care by integrating real-time data collection, analysis, and automation. This aims to improve early detection of health issues, provide personalized treatments, enable		
Chief Guest /Speaker Details	Dr. K. Mohan, Professor, Online Learning Center, VIT Vellore Institute, Vellore		
Date	23/09/2024 to 28/09/2024	Time	10.00 AM to 01.00 PM
Venue	Google meet	No. of Participants	60

## REPORT

### TITLE

null

### CONTENT

Cyber-Physical Systems (CPS) in healthcare have seen significant advancements, transforming patient care through the integration of real-time data collection, analysis, and automation. Wearable and implantable devices now offer continuous monitoring of vital signs, enabling personalized treatment and early intervention. The rise of telemedicine, enhanced by CPS and IoT, allows for remote patient monitoring, where real-time data is analyzed by AI to detect abnormalities and provide timely responses. Additionally, CPS has improved robotic-assisted surgeries and rehabilitation, offering precision and adaptability in treatment. These trends are pushing healthcare towards more efficient, responsive, and individualized care models. Advanced biosensors enable continuous monitoring of vitals (heart rate, glucose, etc.) for personalized treatment and early interventions. CPS combined with IoT allows real-time patient data transmission for remote care, while AI-driven systems provide decision support by analyzing health data for abnormalities.



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**EVENT OUTCOME**

The advancements in Cyber-Physical Systems (CPS) in healthcare have led to improved patient outcomes through enhanced real-time monitoring, personalized treatments, and faster medical interventions. Wearable and implantable devices allow continuous health tracking, while telemedicine and remote monitoring enable timely responses to patient needs. AI integration into CPS has improved decision-making and diagnostic accuracy.

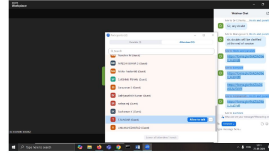
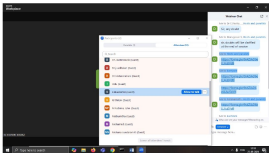
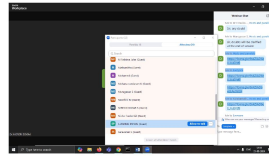
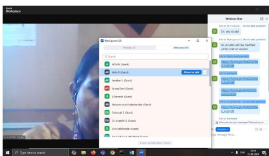
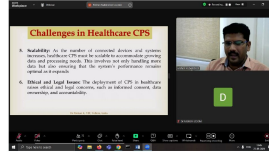
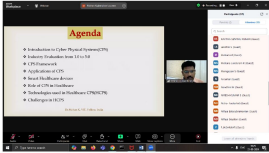
**PHOTOS**



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Dr.G. Nalinashini/ Dr. V.Manonmani