



# INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH

(Recognized by Section 2(f) & 12(B) of UGC Act. by University Grant Commission, New Delhi)

1st Rank among All Colleges of Gujarat by KCG (GSIRF)



M. Sc. (IIoT & Instrumentation)

(Intelligent Internet of Things & Instrumentation)

## Eligibility: B. Sc., B.E., B.Tech, BCA

Industries are rapidly moving towards automation with wireless systems, extending the use cycle with predictive maintenance, powered by Al-ML algorithms.

• Intelligent IoT systems, bolstered by AIML technologies, are aiding in predictive analytics and decision-making processes. Increased network agility, integrated instrumentation, and capacity to deploy, automate, orchestrate, and secure diverse uses at hyper scale is possible.

#### Job Scope

- System Level Solutions
- Product Design Automation
- Manufacturing Process Plant
- · Analytical Biomedical Systems
- R & D Organizations, Academics etc.

# Duration: 2 Years (4 Semesters)

#### **Unique Features:**

- Course provides technical know-how about various sensing systems and its data acquisition
- Step towards Industry 4.0 to Industry 5.0
- Automation with IIoT and enhancement of technical skills
- Industry Specific Blend of Intelligent Software / Hardware Systems
- Combination of theory, practical and project work in each semester.
- Industrial exposure with in-plant training at related industries
- Seminar presentation confidence building
- Experienced and Skilled technical Professionals from Industries for Expert
   Talks, Personality Development Programs
- Prospective course for job placements

### Course Contents:

- · Sensors Fundamentals
- Principles of Control Systems
- Programming Python
- Signal Processing Circuits
- · Optoelectronics & Fiber Optic Sensors
- Sensing & Analytical Systems
- Advanced Microprocessor & Microcontrollers
- Fundamentals of IoT
- · Data bases Data Mining
- Software Testing
- Practical Project work

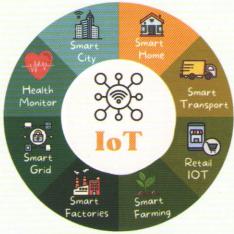


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- Data Communication & Networking
- Machine Learning
- PLC-DCS-SCADA
- RF & Microwave Communication
- Power Electronics & Automotive Sensors
- Biomedical Sensing & Imaging Systems
- Artificial Intelligence
- Robotics & Fuzzy
- IIoT & Cloud
- Micro-system Fabrication Technology
- Practical Project work









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