KKR&KSR Institute of Technology and Sciences
Vinjanampadu, Guntur, Andhra Pradesh-522017

Approved by AICTE, New Delhi and Permanent Affiliation from JNTUK, Kakinada
Accredited with "A" Grade by NAAC & NBA Accreditation Status for 4 UG (CSE, ECE, EEE, ME) Programs

Hands on session to develop IOT Prototype Design
(04th March 2024)
Organized by KKR & KSR Institute of Technology and Sciences in association with MHRD-IIC

About the Institution:

KKR & KSR Institute of Technology & Sciences, popularly known as KITS was established in the year 2008, by GSR & KKR Educational Society in Vinjanampadu village, Vatticherukuru Mandal of Guntur district. KITS has set for itself the mission to churn out professional deft, academically-bright and socially responsible individuals to contribute its wee bit to the knowledge society. The college is situated in a spacious 11 acres of land in- an idyllic rural setting. Despite being a college with 12 years of academic standing, the college is making rapid strides in establishing good practices in teaching-learning processes. It's a pleasure to disclose the achievements made by the students of KITS in all spheres, of participation at the university level. It's proud moment for our institution and students who have topped the university in various faculties of Engineering. The college has good infrastructure and is making concrete efforts in building an industry-institute beneficial corridor through addressing both the potential resources of the region and also meeting the transnational technical requirements. Though main impetus of our college is technology it also supports and encourages students to involve in various social service activities like Blood Donation, Donations to orphanages, old age homes, and poor feeding. As on the date, college enjoys NAAC accreditation of "A" Grade for 5 years, NBA accreditation for 3 years since 2018 and permanent affiliation of JNTUK Kakinada. The institution has received funding amount worth of Rs1.65cr from various funding organizations; there is 170 qualified teaching staff which is more than the stipulated number by AlCTE/affiliating University.

About the Speakers:

1. Dr. M.Purna Kishore

1. **Objectives of the Event:**

   A Hands-on session to develop an IoT prototype focuses on equipping participants with practical skills in designing and building Internet of Things (IoT) devices. It involves understanding the integration of sensors, microcontrollers, and communication modules to collect and transmit data over the internet. The session emphasizes real-world application, enabling participants to prototype a functional IoT device that can interact with other systems, collect data, and provide insights or automation based on that data.

   - Understand the fundamentals of IoT and its design process
   - Learn to identify and define real-world problems that can be solved using IoT
   - Design and develop a functional IoT prototype using various components and tools
   - Integrate sensors, microcontrollers, and communication protocols to collect and transmit data
   - Understand cloud integration and data visualization techniques
   - Apply design thinking principles to create innovative IoT solutions
   - Collaborate with peers to brainstorm and develop a working prototype
   - Test and troubleshoot the prototype to refine its performance

2. **Venue of the Event:**

   The event is organized in KKR & KSR Institute of Technology and Sciences.

3. **Date & Time of the Event:** This is organized on 4th March 2024
4. **No. of students participated:** 56
5. **No. of faculties participated:** 1

6. Event photographs :

7. Benefits in terms of learning/Skill/Knowledge obtained.

Hands on session to develop IOT Prototype Design (04 March 2024) is organized by KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES In Association with MHRD-IIC. Participants gain hands-on experience in working with IoT hardware components like sensors, microcontrollers (e.g., Arduino, Raspberry Pi), and communication modules. They learn to integrate these components into a functional prototype, enhancing their technical skills in electronics and programming. Through the process of designing and troubleshooting IoT prototypes, participants improve their critical thinking and problem-solving skills, learning to identify and resolve issues in real-time. By developing a custom IoT prototype, participants enhance their ability to think creatively and innovate, applying their knowledge to design new, useful devices that meet specific needs.

8. One Participant Feed Back:

I am B.Deepak as Student in ECE department in KKR & KSR Institute of Technology and Sciences. I have attended the **"Hands on session to develop IOT Prototype Design" (04th March 2024) Organized by KKR & KSR Institute of Technology and Sciences in association with MHRD-IIC.** First of all I want to thank my college management who provided such facility for all of us to learn and experience these Hands on sessions. In this regard my sincere thanks to AICTE-MHRD-IIC, who have been conducting such type of events for the Students nourishment. I attended the session 4th March 2024. I learn the many concepts from the **Hands on session to develop IOT Prototype Design.**

9. Expenditure Amount (If any): **RS.15,000**

10. Remarks: The FDP is organized smoothly with practical orientation.

11. Experiences and Output of the Session :

Many Students in the college are attended the **"Hands on session to develop IOT Prototype Design" (04th March 2024),** conducted by KKR & KSR Institute of Technology and Sciences in association with MHRD-IIC.

Teams developed working prototypes addressing real-world problems, such as: Smart Home Automation Systems, Environmental Monitoring Systems. Participants created design documents outlining their project's: Problem statement, System architecture, Component selection, Testing and iteration process. Teams presented their projects, demonstrating their prototypes' functionality and features. Participants took home their project's code and design files, reusable for future development. Participants gained hands-on experience with IoT components, cloud integration, and data visualization tools. Teams connected with peers and instructors, fostering a community of IoT enthusiasts. A showcase of all projects, allowing participants to explore and learn from each other's work. By providing a comprehensive hands-on experience, participants developed a deeper understanding of IoT prototype design, preparing them to tackle real-world challenges and innovate in the IoT space. Thank you very much to the management and MHRD-IIC for giving the opportunity.