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

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Organized A Six Day workshop on "problem Solving & Ideation using Robotics"
By: HackBots,Hyderabad

About the workshop:

Details about what was covered in the workshop, such as basics of robotics, programming languages used (like Python or C++), specific hardware and software tools (like Arduino, Raspberry Pi, ROS), and types of robots discussed (like humanoid, industrial, or drones).Data on the practical aspects of the workshop, including the number and type of projects completed, skills practiced (like circuit design, coding, or soldering), and any competitions or challenges held.

About the Chief Guest: Mahan Rk (HackBots, CEO)

Mr.Mahaan Rk GARU, accomplished Robotics Product Research Engineer with a decade of experience in the field. His proficiency is deeply rooted in the fascinating territory of Robotics product research and development.In the domain of entertainment, he is a master of animatronics, skillfully crafting lifelike Robotic characters and creatures. Furthermore, his expertise in show control systems for amusement parks empowers him to artfully synchronize a multitude of elements during live shows, including Robotics, audio, lighting, and special effects, creating truly mesmerizing experiences.

Over the course of his distinguished career, sir has led numerous groundbreaking projects, redefining the possibilities in Robotic systems.Notably, sir is a proud member of the Indian Association of Amusement Parks and Industries and the All India Robotic Association. Widely recognized as one of the country's most accomplished Imagineers. We are very happy to have sir as a resource person for our 6 day workshop.

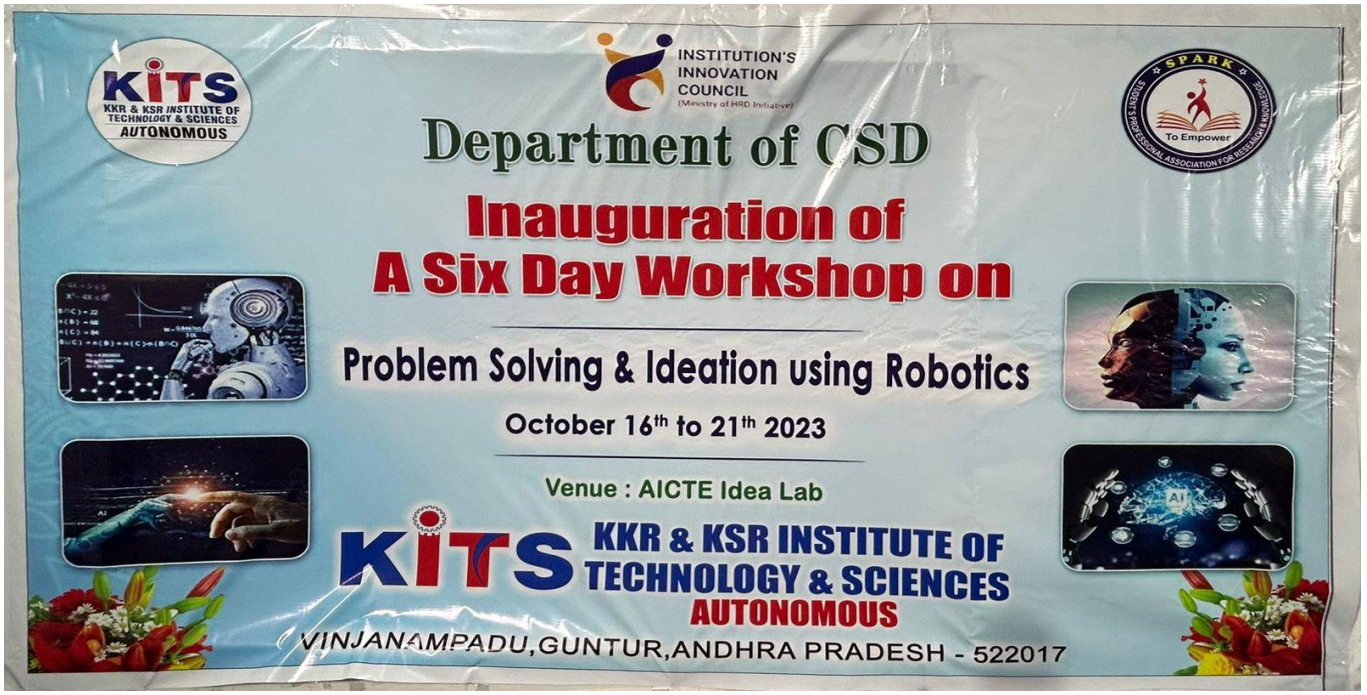
Objectives of the Event:

1. Introduction to Robotics: Providing a foundational understanding of what robotics is, including its history, evolution, and current trends in the field.
2. Hands-On Experience: Offering practical experience in building and programming robots, which is essential for understanding the complexities and challenges in the field of robotics.

3. Programming Skills Development: Teaching programming languages commonly used in robotics, such as Python, C++, or specialized robotics software like ROS (Robot Operating System).
4. Understanding of Mechanical and Electronic Components: Educating participants about the various mechanical and electronic components used in robotics, such as sensors, motors, controllers, and circuitry.
5. Problem-Solving and Critical Thinking: Encouraging participants to think critically and creatively to solve complex problems, which is a key skill in robotics and engineering.
6. Teamwork and Collaboration: Promoting teamwork and collaboration, as building robots often requires working effectively in teams, combining diverse skills and knowledge.

7. **Venue of the Event:**

   The event is organized on campus and conducted by KKR & KSR Institute of Technology and Sciences, Vinjanampadu, Guntur, Andhra Pradesh in association with SPARK
8. **Date & Time of the Event:** October ,16th to 21st, 2023
9. **No. of students participated:** 150
10. **No. of faculties participated: 7**
11. **Event photographs.**



Benefits:

1. Enhances Problem-Solving Skills: Robotics challenges individuals to think critically and creatively to solve complex problems, fostering innovative thinking and solution-oriented

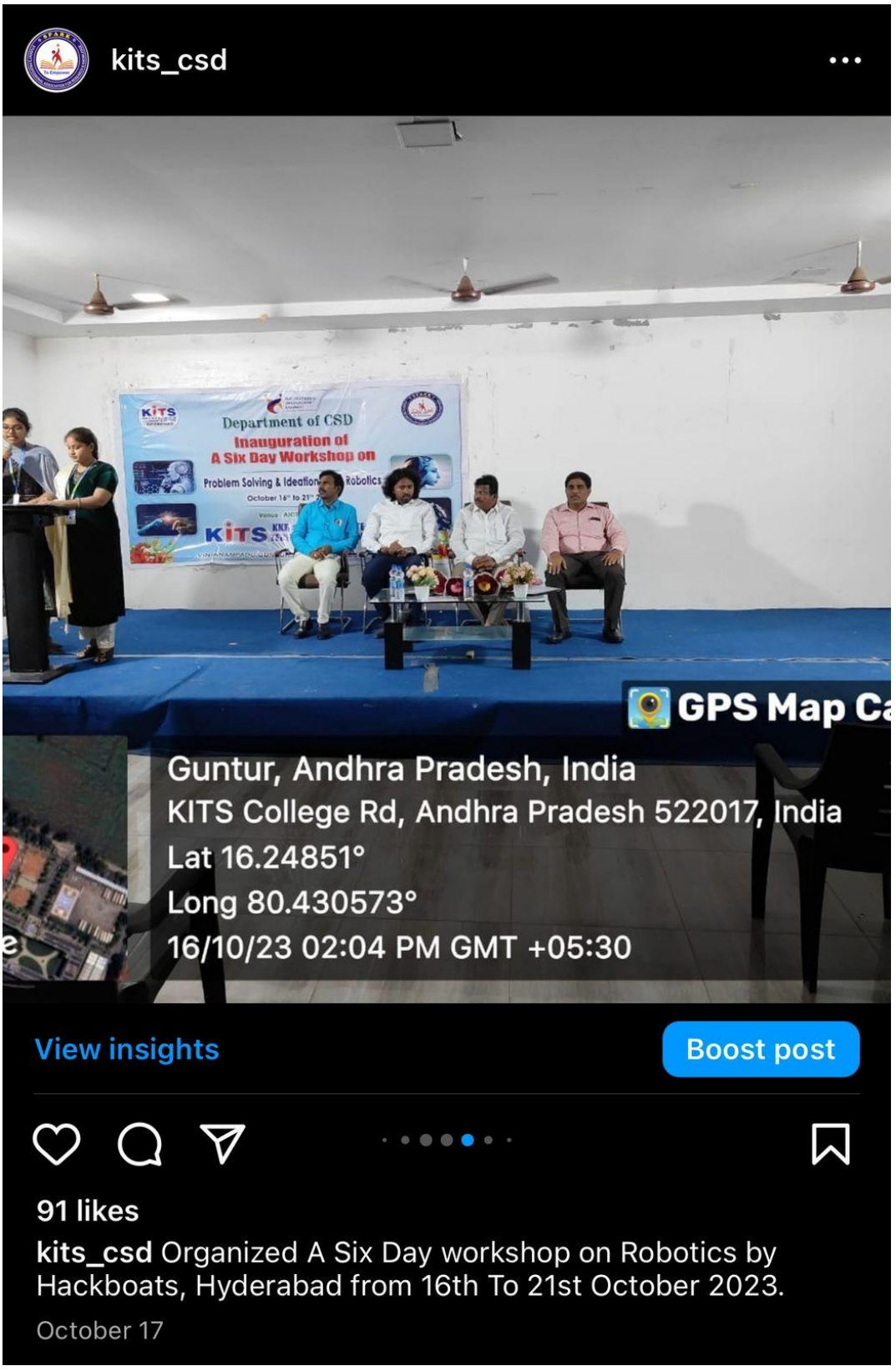
mindset.

2. Boosts Programming Skills: Learning robotics often involves programming, which enhances coding skills - an essential competence in today's digital world.
3. Promotes Understanding of Mechanical and Electrical Concepts: Robotics education provides hands-on experience with mechanical and electrical systems, offering practical knowledge that can be applied in various engineering fields.
4. Encourages Teamwork and Collaboration: Robotics projects often require collaboration, teaching valuable teamwork skills as individuals learn to work and communicate effectively in groups.
5. Fosters Creativity and Innovation: The field of robotics allows for creative exploration, encouraging learners to innovate and think outside the box.
6. Prepares for Future Careers: With the increasing application of robotics in industries like manufacturing, healthcare, and logistics, learning robotics can provide a competitive edge in the job market.
7. Develops Project Management Skills: Building robots involves planning, executing, and managing projects, thus enhancing project management skills.

(6) https://www.facebook.com/photo/?fbid=288839897368169&set=pcb.288840177368141

12. Event at the University/college :(Link and Screenshot)

KITS_CSD (@kits_csd) • Instagram photos and videos



13. Expenditure Amount (If any): Nil

14. Remarks: The Event is organized smoothly with practical orientation.

15. Experiences and Output of the Session

The outcomes of using Robotics development are numerous and impactful. Some of the key outcomes include:

1. Enhances Adaptability and Learning Agility: The fast-evolving nature of robotics technology fosters adaptability and quick learning, skills highly valued in any career.
2. Improves Mathematical Skills: Robotics involves mathematical concepts, improving skills in areas like geometry, algebra, and calculus.
3. Increases Digital Literacy: In an increasingly digital world, understanding robotics contributes to overall digital literacy.
4. Inspires Interest in STEM Fields: Learning robotics can spark interest in science, technology, engineering, and mathematics, fields that are crucial for technological innovation.
5. Addresses Real-World Challenges: Robotics education often includes solving real-world problems, which can be incredibly rewarding and motivational.
6. Cultivates Patience and Determination: The process of designing, building, and troubleshooting robots teaches patience and determination.
7. Enhances Awareness of Ethical and Societal Implications: Robotics education also encompasses discussions about the ethical and societal impacts of technology, promoting responsible innovation.
8. Builds Confidence: Successfully building and programming a robot can be a confidence-boosting accomplishment, particularly for young learners.