TECHNICAL CLUB: ROBOTICS, MICRO-PROCESSOR & MICRO-CONTROLLER

CORE DISCIPLINE: ELECTRONICS & COMMUNICATION ENGINEERING

MENTOR: MR. SNEHANSHU SHEKHAR, ASSISTANT PROFESSOR, ECE

TECHNICAL BACKGROUND AND UTILITY OF THE CLUB

ROBOTICS IS THE TECHNIQUE OF IMPLEMENTING THE HUMAN INTELLIGENCE ON MECHANICAL STRUCTURES THAT IS CAPABLE OF DOING VARIOUS SOPHISTICATED TASKS. WHETHER IT IS THE CONCEPT OF "SURROGATES" OR PRACTICAL MONITORING OF THE SYSTEM IN ADVANCE LABS LIKE CERN, ROBOTS FIND APPLICATIONS THAT WERE IMPOSSIBLE TO BE DONE BY HUMAN BEING. ROBO-TECHNOLOGY IS IMPLEMENTED IN EXPLORING THE POSSIBILITY OF LIFE ON MARS, REPAIRING WORK IN SPACE CRAFTS, MAINTAINING A NUCLEAR REACTOR, MEDICAL APPLICATIONS, ETC

MICROCONTROLLER AND MICROPROCESSOR ARE MULTITASKING ELECTRONIC DEVICES THAT ARE NOW BEING USED IN MOST OF THE ADVANCE ELECTRONIC, ELECTRICAL AND COMPUTING SYSTEMS. AT THE PRESENT ERA OF NANOTECH, IT IS BEING CONSIDERED AS A MAGIC WAND FOR ITS DIVERSIFIED USE IN EMBEDDED ELECTRONICS, ELECTRO-MECHANICAL CONTROL SYSTEMS, ROBOTICS AND OTHER AUTOMATION ENGINEERING ASPECTS. ROBOTICS, MICRO-PROCESSOR AND MICRO-CONTROLLER FIND APPLICATION ALMOST EVERY ASPECT OF TECHNOLOGIES LIKE; PROCESSING, COMMUNICATION, MONITORING OR CONTROLLING OF SYSTEM, IMPLEMENTATION OF FUZZY LOGIC IN INTELLIGENT SYSTEMS OR DATA STORAGE AND MECHATRONICS.

THE CLUB AIMS TO CREATE INTEREST IN STUDENTS IN THIS DOMAIN AND GIVE THEM A PLATFORM TO SUPPORT THEIR CREATIVITY TO INNOVATE THROUGH PRACTICAL LEARNING AND APPLICATION ORIENTED MINDSET. THE CLUB ALSO AIMS TO CHANGE THE CURRENT VISION AND UNDERSTANDING OF STUDENTS FOR ENGINEERING AND GIVE THEM A BROADER OUTLOOK OF THE CURRENT TRENDS AND ENCOURAGE THEM MAKE A NEW FUTURE OF TECHNOLOGY. THE CLUB FURTHER EXTENDS ITS GOAL TO HELP STUDENTS COMPETENCE IN THIS DOMAIN FOR EXCITING CAREER IN EVERY INDUSTRY THAT WORKS IN THIS DOMAIN LIKE SIEMENS, TEXAS INSTRUMENTS, NATIONAL INSTRUMENTS, TCS, WIPRO, INFOSYS, INTEL, INFINEON, MICRO-CHIP, CADENCE, ETC AND ORGANIZATIONS THAT IMPLEMENT THESE TECHNOLOGIES LIKE NASA, ISRO, DRDO.

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ACTIVITIES TO BE CONSIDERED UNDER THE CLUB:

THE ACTIVITIES OF THE CLUB HAVE BEEN WELL FORMULATED TO DEVELOP INTEREST AND COMPETENCE OF THE STUDENTS IN THE RELATED TECHNOLOGIES WITH EMPHASIS ON APPLICATION ASPECTS OF THE CONCEPTS. FOLLOWING ACTIVITIES HAVE BEEN CONSIDERED:

- LEARNING THROUGH TECHNICAL MAGAZINES AND JOURNALS
- DESIGN AND PRACTICAL MODELLING OF RELEVANT CIRCUITS USING GENERAL PURPOSE PROCESSORS, GENERAL PURPOSE CONTROLLERS, ASIC, ASIP, DSP PROCESSORS
- SOFTWARE SIMULATION OF THE DESIGN AND ITS PERFORMANCE EVALUATION
- PAPER WRITING AND PRESENTATION
- QUIZ AND GROUP DISCUSSIONS ON THE CLUB THEME RELATED TOPICS
- CONDUCTION OF WORKSHOPS AND PRACTICAL TRAINING SESSIONS
- INTERACTION WITH EMINENT INDUSTRIAL AND ACADEMIC EXPERTS IN THE DOMAIN OF CLUB THEME
- INDUSTRIAL AND INSTITUTIONAL TOURS
- CONSIDERING INDUSTRIAL R&D PROJECTS IN THE DOMAIN OF THE CLUB THEME

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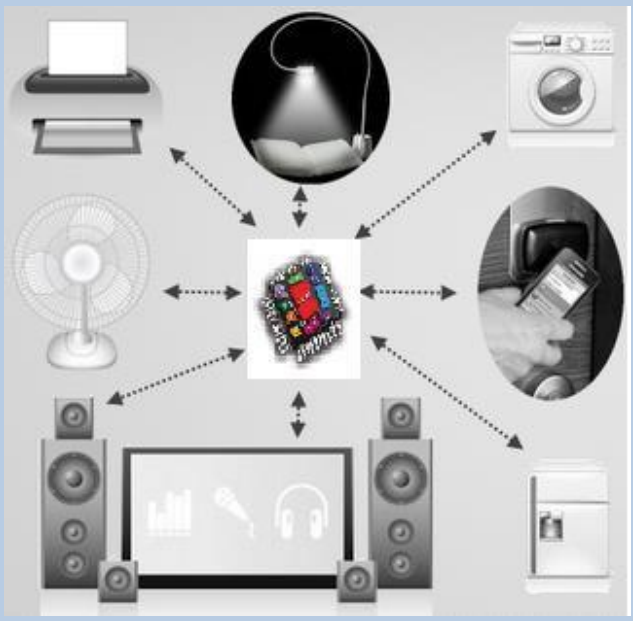

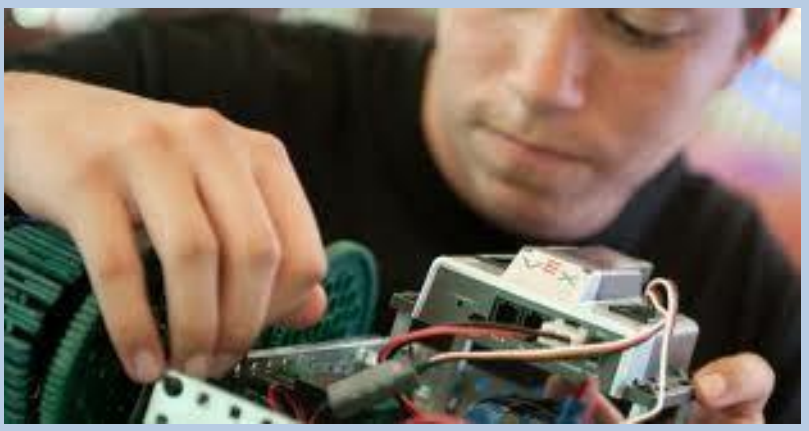

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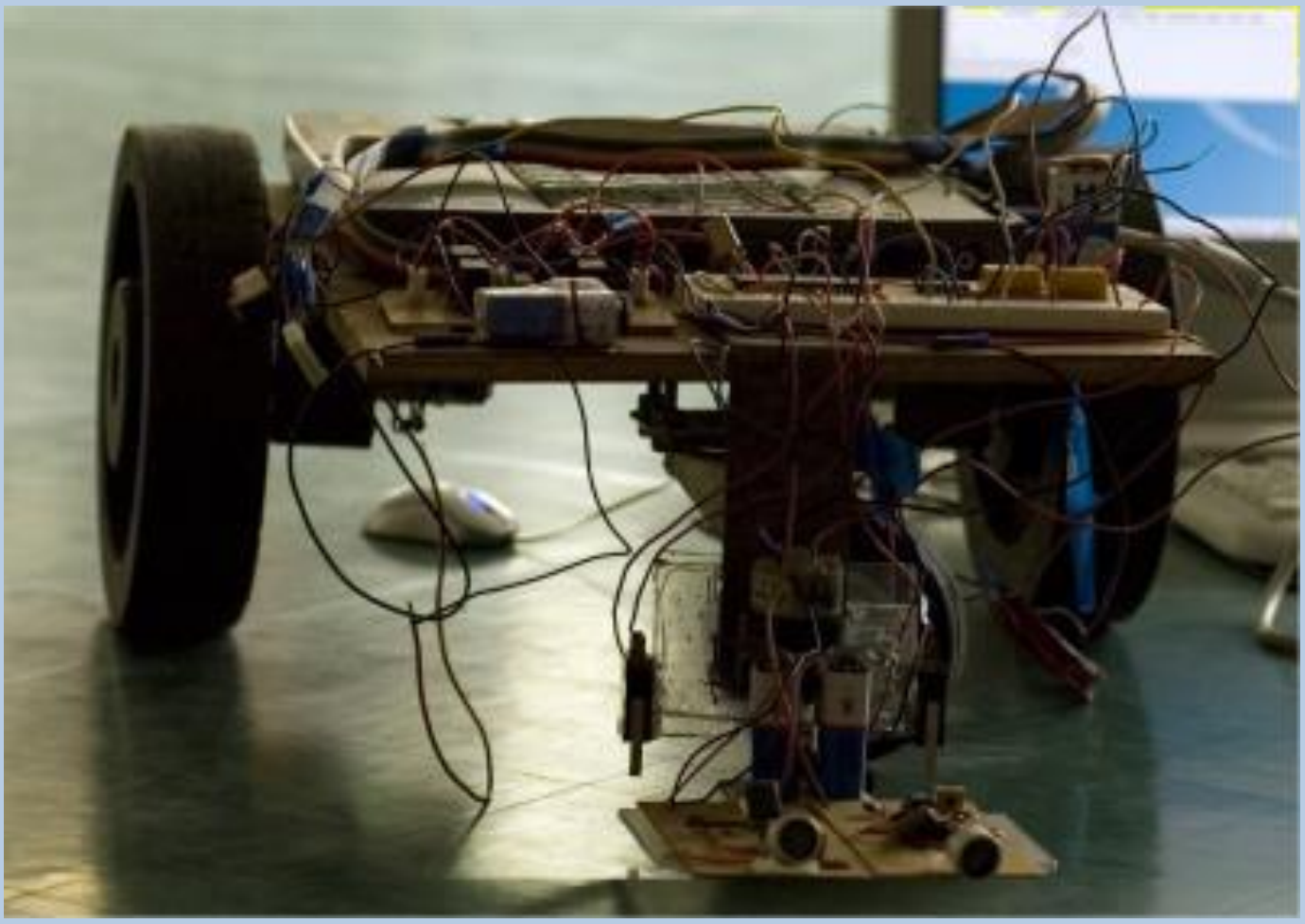

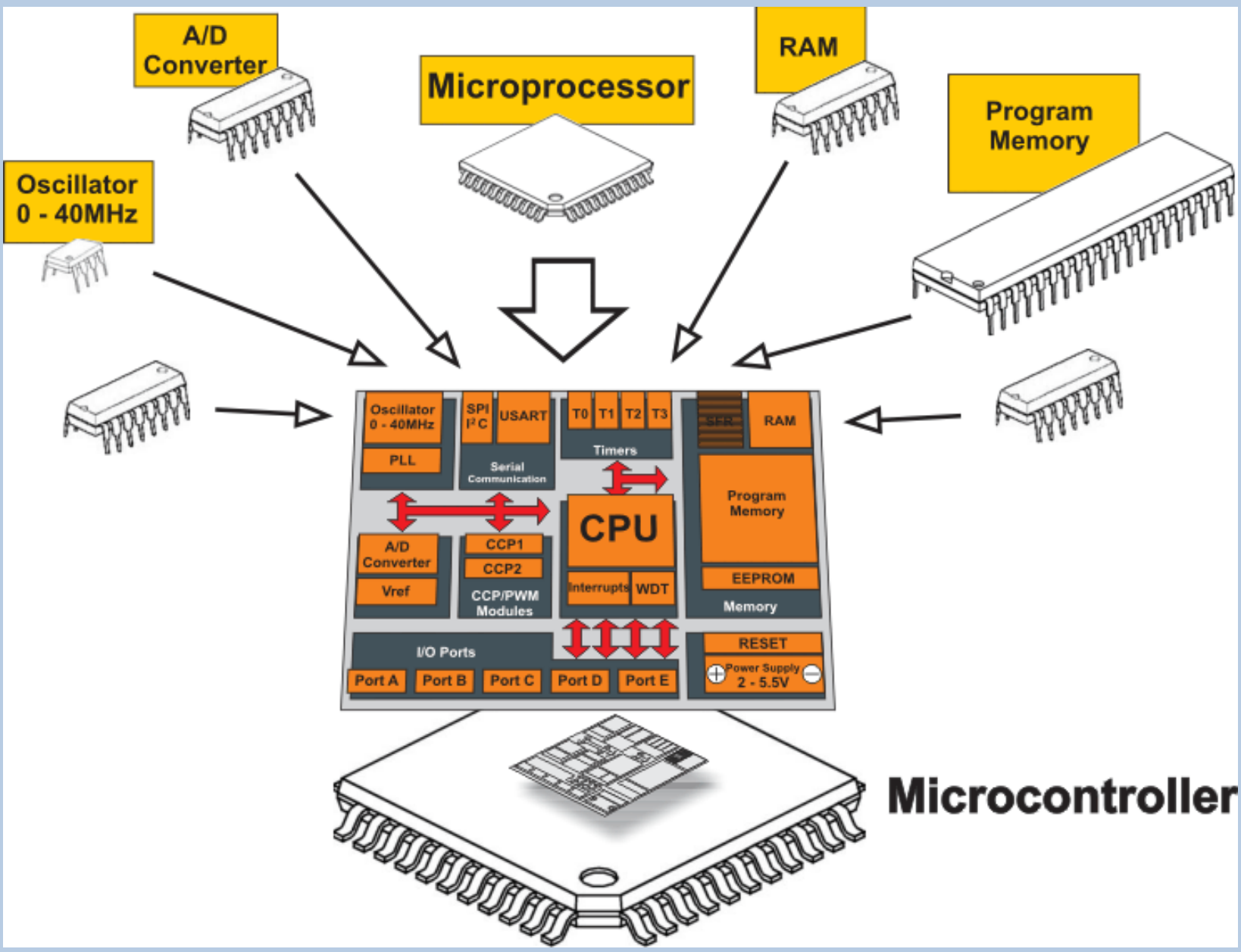

SOME IMAGES OF TECHNOLOGICAL DEVELOPMENT IN THE CLUBS DOMAIN