

PRODUCT ENGINEERING GROUP



FACILITIES AVAILABLE

HARDWARE

- n Bradley AC Drive Power Flex 40 5HP
- **ABB AC & DC Drive ACS 550/ DCS 800 2HP &5HP**
- Lab Volt AC & DC drive trainer
- **Allen Bradley PICO Controller 1760**
- **Chase EMI Test Setup**
- Tektronix TPS 2014 4- channel isolated Power Scope
- **Voltek Power Analyzer PM 1000 Plus**
- 200MHz DSO, 100MHZ, 40MHZ 2 channel DSO
- **Motor Control Development Boards**
 - Microchip dsPIC 3F6010, TI 320F243
- MPLAB ICD3 in- circuit programmer and debugger
- **Microcontroller Development Boards**
- 8x51, AVR ATmega 8, PIC 16F877
- Logic probe, current probe and Debugging tools
- 3 Phase LV and HV Power Modules
- **ODB II ECU Simulator**
- Siemens Logo 12/24 RCE PLC

SOFTWARE

- Tasking C Cross compiler with Keil uVision4 IDE
- EDA Tools (OrCAD, Proteus VSM 8.2)
- MPLAB IDE
- AVR Studio
- **HI-TECH C Enterprise version for Microchip PIC family** (Educational license)
- ABB Drive Window light



Facilities Proposed

HARDWARE

SOFTWARE

- Development setup for Solar Photo voltaics and LED lighting
- **Development set up for Automotive Electronics**

OBD II diagnostic software

CENTRALLY SPONSORED PROJECTS(ONGOING/COMPLETED) **R&D PROJECTS**

Microcontroller based Evaporation Rate Monitoring Unit Sponsored by DST, Gov. of India

PCO Monitor for Visually Handicapped Sponsored by Ministry of Welfare, Government of India

CAPACITY BUILDING PROJECTS

- Training program on IT Skills to improve the employability of the rural youth belonging to SC/ST/Minority (144 Lakhs) – 5300 candidates in Kerala
- Training program on ITeS-BPO to improve the employability of the rural youth belonging to SC/ST/Minority/Women (117 Lakhs) - 930 candidates in Kerala
- Certification of Scheduled Caste (SC) students in job oriented courses in IT
- (46.32 Lakhs) 600 candidates in Kerala
- Training Program in BCC (Basic Computer Course) for the Panchayath Functionaries for the States of Kerala, Karnataka, AP and Lakshadweep with assistance of MoPR, Govt. of India
 - (47.422 Lakhs) 2620 candidates
- Free Computer Courses for SC and OBC funded by MSJE
- (24.75 Lakhs) 200 candidates
- IT Skills & e-inclusion through low cost access devices based awareness program for scheduled Tribes
- (132.47 Lakhs) 1500 candidates in Kerala

ACTIVITIES

FORMAL PROGRAM

TRAINING PROGRAM

COURSE WORK OFFERED BY THE GROUP

- M Tech (ES & EDT)
 - -Electronic System Design, **Automotive Electronics**
- Product Design and Quality Management **Embedded Applications in Power Conversion**

SHORT TERM

- Embedded Product Design and Management
- Embedded Controller based System Design
- Industrial Drives
- Corporate Training Programs TISCO, BPL, Data Patterns
- FMEA, QFD, Quality Management

R&D ACTIVITIES/PROJECTS(ONGOING/COMPLETED)

- **Batch Automation System for Cattle Feed Plant**
- Customer: Kerala Cooperative Milk Marketing Federation (KCMMF)
- **Chopper Drive for Fork Lift Truck**
 - Customer: M/s TISCO, Jamshedpur
- **High Frequency Welding Unit**
- Customer: M/s TISCO, Jamshedpur
- **UVC for 25kW Brushless Alternator**
- Customer: M/s. KEL, Kundara (Received RDSO approval)
- 6 Axis Controller for Carl Zeiss Planetarium Projection Equipment & Planetarium Automation System Customer: M/s RSC, Calicut
- Technology Platform for delivery of Multimedia contents for Muziris Heritage Project
- Customer: Department of Tourism Govt. of Kerala, Govt. of India
- Customization of Technology Platform for delivery of Multimedia contents for Golden Jubilee Museum Customer: Kerala Legislature Secretariat

CERTIFICATION SCHEME

Coordination, conduction and certification of BCC & CCC Exams in the states of Kerala, Karnataka & Lakshadweep

OTHER MAJOR ACTIVITIES

Operation and Maintenance of HT & LT electrical Installation and telecom infrastructure of the Centre

ACADEMIC PROJECTS

Guided over 200 MTech/BTech academic projects

ACHIEVEMENTS

Know how developed for more than 50 Electronic products for SSIs

MAN POWER

- Pratap Kumar. S, Scientist/Engineer "E"
- Saritha S, Scientist/Engineer "E"
- Manojkumar M.K, Technical Officer
- Venkatraman R, Assistant
- **Suresh K P, Senior Technical Assistant** (Electrical Maintenance)

