



# ARASU ENGINEERING COLLEGE

Approved by AICTE & Affiliated to Anna University  
Chennai Main Road, Kumbakonam – 612 501, Tamilnadu

## Best Practice II

### PROJECT BASED LEARNING

#### 1. Goal

The objectives of this project based learning of this institution are as follows:

- ❖ To enhance the innovative skills of the student
- ❖ To encourage the students to make projects to meet the challenges in current scenarios
- ❖ To obtain the exposure of technical skills regarding project development
- ❖ To induce the students to participate in the project expo conducted by the various colleges/universities
- ❖ To enhance the students to acquire deeper knowledge through active exploration of real world challenges and problems.
- ❖ It also develops the presentation skill of the student when the project has been exhibited

#### 2. The Context

The contextual feature of this system is to make technically well equipped students by giving chance to learn and create the innovative projects. Here it gives an opportunity to analyze the industrial and social problems and make solutions for them through the project development.

#### 3. The practice

- ❖ Students work on a project over an extended period of time – from a week up to a semester – that engages them in solving a real-world problem or answering a complex question. They demonstrate their knowledge and skills



by developing a public product or presentation for a real audience. As a result, students develop deep content knowledge as well as critical thinking, creativity, and communication skills in the context of doing an authentic, meaningful project.

- ❖ Innovative projects are published in media and the device developed is introduced to the society. To showcase the innovations of the students, the faculty members has been deputed as mentors for the project team and encouraged them to participate in HACKATHON and other events conducted as Project Expo.

#### 4. Evidence of success

- ❖ The students have undergone their academic project with full-fledged involvement and innovative ideas.
- ❖ In the last three years, nearly 16 innovative projects were selected as best projects by Tamilnadu State Council for Science and Technology, Unnat Bharat Abiyan and Institute of Scholars.
- ❖ 7 societal based products were developed by the students and have been donated to the Government Hospitals and villages.

The following innovative societal based projects were developed by the students apart from their regular projects and won the prizes

| S. No. | Department | Name of the projects                                                           | Name of the Students                                                           | Name of the Guide      |
|--------|------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------|
| 1.     | Auto       | Solar Powered Electric car with Variable Wheelbase Technology                  | U. Sivakumar<br>T. G. Rajees<br>S. Srimarivivas<br>N. Vignesh<br>P. Pugazhenth | Mr. R. G. Padmanabhan  |
| 2.     | Auto       | Recycle of sea food waste into electric device panels by 3D printing           | A. Bharathi<br>R. Hemavardhan<br>A. Mohammed Aslam                             | Mr. A. Joseph Arokiyam |
| 3.     | Civil      | Study on characteristics of construction brick using Municipal Waste material. | G.Jeevithalakshmi<br>M.Durgadevi<br>S.Sukima.                                  | Dr.B.Raguvaran         |



|     |     |                                                                                            |                                                                                   |                          |
|-----|-----|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------|
| 4.  | CSE | Smart Dustbin Management to destroy Covid-19 Virus.                                        | S. Harini<br>S. Sangeetha                                                         | Mr.M.Anandakumar         |
| 5.  | CSE | Smart road safety system to mitigate the accidents                                         | S. Pavithra<br>G. Keerthana<br>K.S. Keerthana                                     | Mr. V. Kovendan          |
| 6.  | CSE | Smart Gate for Covid-19 mask detection.                                                    | Abu Firnaz<br>Udhayanithi<br>Harini.S                                             | Mr. M. Kannan            |
| 7.  | CSE | A smart meter system for smart city to avoid electricity theft                             | S. Prabha<br>S. Shafreen Shafa<br>K. Subathra                                     | Mrs. V. Revathi          |
| 8.  | CSE | Reducing the manpower and improving the plant productivity using IOT                       | M. Magesh<br>K. Sachithanantham<br>S. Thennarasu                                  | Mrs. T.S. Murunya        |
| 9.  | CSE | Detection of tomato plant disease by leveraging the power of deep learning and UAV imagery | S. Akshaya<br>R. Nandhinidevi<br>S. Thrisha                                       | Dr. Kalaimani Shanmugham |
| 10. | CSE | Design and Implementation of Smart Commercial Vehicle Using IoT                            | R. Vijayaragavan                                                                  | Mrs. T.S. Murunya        |
| 11. | CSE | IoT based Smart Precision Agriculture in rural areas                                       | A. Aasha Sulthana<br>K. Priyadarshini<br>R. K. Shanmuga Priya<br>S. P. Ragasudha  | Mr. K. Jeyanth           |
| 12. | ECE | IoT Based Screening Machine For Covid-19 And Pulmonary Diseases                            | S. Hrithik Sriram<br>J.M. Govindhan<br>M. Suriya Prakash<br>S. Franklin Jones     | Mr. A. Sriram            |
| 13. | ECE | Modern Technology In Agriculture Farming Using Sensors                                     | S. Hrithik Sriram<br>J.M. Govindhan<br>Mohammed Ali Jinna<br>.A<br>Amsath Khan .K | Mrs. G. Kavitha          |
| 14. | ECE | Automatic Health Monitoring System And Social Distancing Band Using IoT                    | S.Hrithik Sriram<br>Azhagarasan. J<br>Reethiga. V.E<br>Shaheen Begum. A           | Mrs. G. Kavitha          |



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|-----|------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------|
| 15. | ECE  | Mining workers rescue system and impact detection                                                         | M. Mohammed Barish<br>R. Jeeva<br>M. Nesamani<br>K. Sabareswaran | Mrs. P.S. Vinishya     |
| 16. | EEE  | Women Safety and Self Defense System                                                                      | Saran. J<br>Jayawilson. J<br>Jagadeeswar. R<br>Thinagan. S       | Mr.M.Thiyagarajan      |
| 17. | EEE  | Life Saving Smart Product for Underground Drainage Cleaning System                                        | Sivaranjani. S<br>Atchaya. S<br>Ranjitha. R                      | Mrs.K.KALPANA          |
| 18. | MECH | Design and fabrication of robot for cleaning and sanitizing the interior of the public transport vehicles | M. Sanjay Balaji<br>C. Joshua Arok Austin                        | Mr. G. B. Sathishkumar |
| 19. | MECH | Design and fabrication of automatic sanitizer dispenser                                                   | M. Sanjay Balaji<br>C. Joshua Arok Austin                        | Mr. G. B. Sathishkumar |
| 20. | MECH | Design and experimental analysis of atmospheric water generator using surface condensation technique      | S. Ahamedkamil<br>A. Ganesh<br>S. Balaganapathi<br>M. Kumaresan  | Mr. C. Parthasarathy   |
| 21. | MECH | Design and performance analysis on graphene oxide based sponge for the adsorption of oil spills           | S. Sakthi<br>K. Saravanan<br>M. Vignesh<br>S. Wilson             | Mr. R. Vijay           |



Head of the Institution

**PRINCIPAL**  
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