# TRAINING / RESEARCH OR ACADEMIC PROJECTS

## Details of Bridge Course in ATL Lab (2024-25)

| S. No. | Course | Facilitator | Department | Date | Venue |
|---|---|---|---|---|---|
| 1. | About ATL | Dr. K. Padma Vasavi | ECE | 11-7-2024 | B-203 |
| 2. | Design Thinking and Innovation | Dr. D. Ramesh Varma | ECE | 12-7-2024<br>13-7-2024 | B-203 |
| 3. | Basics of Electronics | Mr. D. Gireesh Kumar | ECE | 15-7-2024 | B-203 |
| 4. | Digital Electronics | Mr. G. Challaram | ECE | 16-7-2024 | B-203 |
| 5. | Arduino Programming | Mrs. M. Hema Latha<br>M. Prashanth Kumar<br>Ch. Santhosh | ECE/ATL | 18-7-2024<br>19-7-2024<br>20-7-2024 | TI DSP Lab<br>Projects Lab |
| 6. | Actuators, Batteries and Power Management | Mr. A. Siva<br>Mr. B. Mahendra CHand | EEE | 22-7-2024<br>23-7-2024 | |
| 7. | CAD for Packaging<br>2D CAD<br>3D CAD | Mrs. P. Lavanya<br>Mr. N. Rajasekhar | CE<br>ME | 24-7-2024<br>25-7-2024 | C-319 |
| 8. | Product Development | Dr. K. Padma Vasavi | ECE | 26-7-2024<br>27-7-2024 | B--203 |
| 9. | Web Page Development | Mr.A.Nageswara Rao | CSE | 29-7-2024 | B--203 |
| 10. | Mobile App Development | Mr.T.Rajesh | CSE | 30-7-2024 | B--203 |

# ATL Lab Projects (2024-25)

| S.No. | Project Title | Description | Prototype |
|---|---|---|---|
| 1 | Tactile Gloves | Gloves designed to assist visually impaired users in recognizing touch feedback. | |
| 2 | Smart Assistive Clothing | Clothing with fall detection and GPS-based alert system for elderly safety. | |
| 3 | E-Stylus | Braille writing device for visually impaired individuals using a button-operated stylus. | |

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|---|---|---|---|
| 4 | Vitality Visionaries – Luggage Identifier | Smart system for identifying personal luggage using Bluetooth and sensors. | |
| 5 | Myosync | Assistive muscle interaction device | |
| 6 | Auto Braille | Accessible way for visually impaired individuals to convert spoken words in to braille. | |

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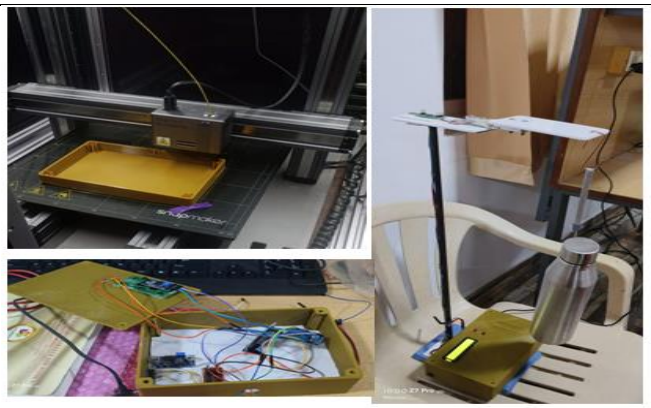
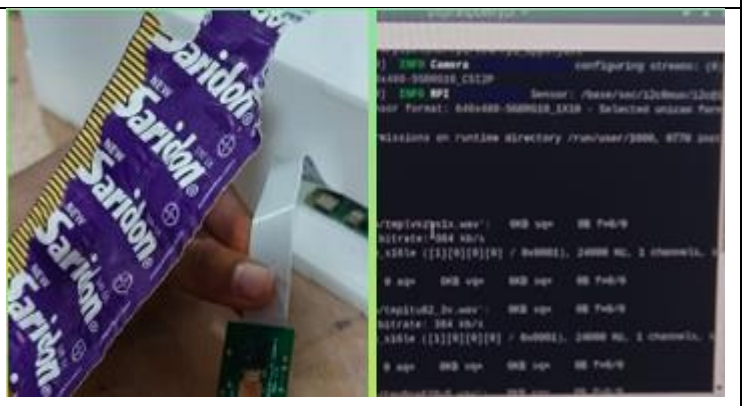
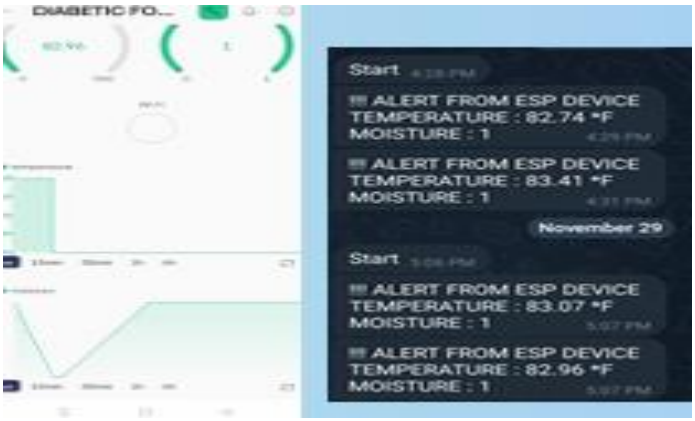
|---|---|---|---|
| 7 | Drip Track | IoT-based monitoring system for saline levels to prevent overflow or delays. |  |
| 8 | Medicine Identifier | Visual/audio-based system for blind users to identify medicines accurately. |  |
| 9 | Diabetic Foot Ulcer Monitoring System | Health monitoring system to detect ulcers early in diabetic patients. |   |

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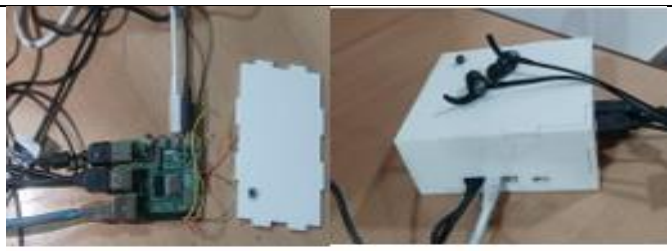
|---|---|---|---|
| 10 | Smart Assistive Glasses | Object detection system using camera and audio output for the visually impaired. |  |
| 11 | Temperature-Controlled Wearable Blanket | Adaptive blanket for patients with neurological or thermal regulation conditions. | |

## Students Benefitted Academic Year 2024-25:

| ATL Project Batches-2024-25 | | | | | | |
|---|---|---|---|---|---|---|
| **Batch No** | **Roll No** | **Name of the Student** | **Department** | **Name of the Batch** | **Project Title** | **Mentors** |
| 1 | 22B01A0475 | Jhansi Nainavarapu | ECE | Anikitos | FLEX TALK | Dr. D. Ramesh Varma Dr.G.Challa Ram |
| | 23B05A0419 | V. Srivalli | ECE | | | |
| | 22B01A4250 | K. Jyothirmai | AIML | | | |
| 2 | 22B01A4275 | P.Gayathri | AIML | VisionForge | Smart assistive Clothing | Mr.D.Girish Kumar Dr.D.Ramesh Varma |
| | 22B01A4542 | K. Jyoshna Manjula | AI&DS | | | |
| | 22B01A4274 | N.Likhitha | AIML | | | |
| | 22B01A0211 | B. Deepthi | EEE | | | |
| 3 | 22B01A0488 | Potu Pranathi priya | ECE | Team Fit | E-Stylus | Mr.N.Rajasekhar Dr.A.Siva |
| | 22B01A04B3 | V.Deepthi | ECE | | | |
| 4 | 22B01A4224 | D.Pravallika | AIML | Vitality Visionaries | Identification of luggage | Ms.G.Kalyani Mr.Mahendra Chand |
| | 22B01A0471 | Md Rahamathunnisa | ECE | | | |
| | 22B01A4297 | Shaik.Alfiya | AIML | | | |
| | 22B01A0485 | Pati Priyambica | ECE | | | |
| 5 | 22B01A4251 | K.Sai Sahithi | AIML-A | Anantah Aavishkar | Myosync | Ms.G.Kalyani Dr. K.Padma Vasavi |
| | 22B01A04c0 | V.Alekhya | ECE | | | |
| | 22B01A0241 | N.Hemasri | EEE | | | |
| | 22B01A0301 | A.Bhavana Ratnam | MEC | | | |
| 6 | 23B05A0407 | K.Keerthi | ECE | InnovAid | Voice to Braille | Ms.M.Hemalatha Mr.Nageswara Rao |
| | 22B01A0104 | C.Vamsi Lakshmi Prasanna | CIVIL | | | |
| | 23B05A0405 | G.Sai Sreeja | ECE | | | |
| 7 | 22B01A0455 | K. Keerthana | ECE | Disability Disruptors | Drip Track | Mr.Nageswara Rao Mr.Rajesh |
| | 22B01A0457 | K. Vidya Sowmika | ECE | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 22B01A0461 | M. Mouvya Sree | ECE | | | |
| | 23B05A0402 | B. Jyothi Sri | ECE | | | |
| 8 | 22B01A0433 | G. Lavanya | ECE | Believers | Medicine Identifier | Mr.Mahendra Chand Ms.M.Hemalatha |
| | 22B01A0413 | Ch.Gnana Sri | ECE | | | |
| | 22B01A0425 | G. Dhathri Gayatri | ECE | | | |
| | 22B01A0324 | k. Bhargavi | MECH | | | |
| 9 | 22B01A04A1 | Tallapenta Yasaswini | ECE | Ability Achievers | Diabetic foot ulcer monitoring system | Dr.K.Padma Vasavi Ms.P.Lavanya |
| | 22B01A0205 | Arava Durga sree | EEE | | | |
| | 23B05A0205 | Kuppili Lavanya | EEE | | | |
| | 22B01A0462 | Marri Prasanna | ECE | | | |
| 10 | 22B01A4539 | KATAKAM LAKSHMI SANDEEPA | AI&DS-A | GALAXY GIRLS | Smart assistive glasses | Dr.G.Challa Ram Mr.D.Girish Kumar |
| | 22B01A0408 | B.TIRUSELVI | ECE | | | |
| | 23B05A0204 | K.N.S.NEHANVITHA | EEE | | | |
| | 23B05A0108 | N.Y.D.RAJYALAKSHMI | CIVIL | | | |
| 11 | 22B01A4506 | BAJINKI KOMALI | AI&DS-A | PRERANA | Temperature Controlled Wearable Blanket | Dr.A.Siva Mr.N.Rajasekhar |
| | 22B01A4530 | GUDIMETLA VARSHINI REDDY | AI&DS-A | | | |
| | 23B05A0203 | KANDUKURI LAKSHMI SRAVANI | EEE | | | |
| | 22B01A0322 | K. MRUDULA VENKATA SAI SRI | MECH | | | |

# International Day of Persons with Disabilities – Assistive Technology Project Exhibition Day (3-12-2024)

**Date:** 3rd December 2024

**Venue:** B-Block Seminar Hall, Department of ECE, SVECW

**Organized by:** Assistive Technology Lab (ATL), SVECW

**Chief Guest:** Dr. U.V. Ramana Raju, Managing Trustee, Centre for Visually Challenged, Bhimavaram

**Participants:** Dr. G. Srinivasa Rao (Principal, SVECW), Prof. P. Venkata Rama Raju (Vice-Principal), ATL Dean, 40 ATL Students, 12 ATL Mentors, and 2 Supporting Staff

## Event Overview

Shri Vishnu Engineering College for Women (SVECW) proudly hosted the Assistive Technology Project Exhibition Day on 3rd December 2024 in observance of the International Day of Persons with Disabilities. Organized by the Assistive Technology Lab (ATL) of the ECE Department, the event showcased student innovations aimed at empowering individuals with disabilities through affordable and user-friendly technological solutions.

## Inaugural Session

The event opened with a prayer and ceremonial lamp lighting. Dr. K. Padmavasavi, ATL Dean, welcomed the dignitaries and highlighted ATL's impact. Prof. P. Venkata Rama Raju, Vice-Principal, congratulated the teams for socially relevant innovations. Dr. G. Srinivasa Rao, Principal, SVECW, emphasized ATL's role in integrating technology with empathy.

## Keynote Address

Dr. U.V. Ramana Raju, Chief Guest and Managing Trustee, Centre for Visually Challenged, delivered a powerful keynote emphasizing the importance of technology in improving the quality of life for persons with disabilities. He appreciated the tangible efforts made by the ATL students.

**ATL Product Distribution:**

| S.No. | Project Name | Remarks |
|---|---|---|
| 1 | Trike (Scooter) | Directly Distributed to an Individual Client |
| 2 | Datura Flower (Tactile Botany Model) | Distributed to U.V. Ramana Raju Blind School |
| 3 | E-Sticks (Smart Walking Sticks) | Distributed to U.V. Ramana Raju Blind School |
| 4 | Human Heart (3D Printed Model) | Distributed to U.V. Ramana Raju Blind School |

**GLIMPSES OF EVENT**

GPS Map Camera
Kovvada, Andhra Pradesh, India
Block B, Kovvada, Andhra Pradesh 534206, India
Lat 16.567732° Long 81.522364°
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Google

GPS Map Camera
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Google

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Google

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ENTRANCE EXIT
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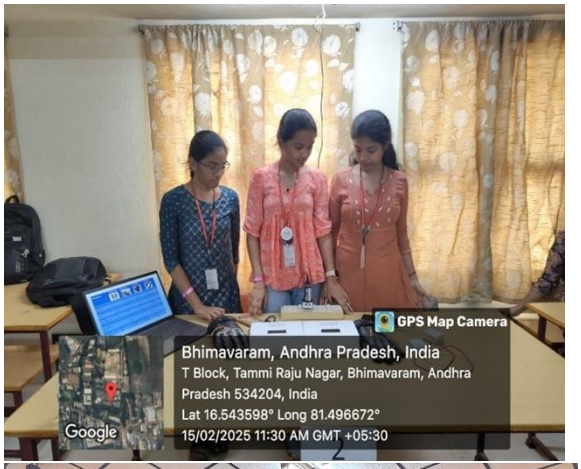
Google

The program ended with a vote of thanks from the ATL Coordinator, appreciating the involvement of 40 students, 12 mentors, and the support from college management. The event exemplified how engineering education can be transformed into a socially impactful journey, creating a strong foundation for empathetic and inclusive innovations.

# ATL 2024-25 Outcomes

The Department of ECE at S.R.K.R. Engineering College hosted its flagship tech fest, TRANCE-2K25, on February 15, 2025. The event featured a dynamic blend of technical innovation and creative expression through segments like T-Techathon, Art Spark, NexGen, Caliber Clash, and more. Students showcased exceptional skills in coding, gaming, quizzes, art, and IoT. Among the highlights, Jhansi Nainavarapu (22B01A0475) earned First Prize in the T-Techathon, demonstratingthe project FLEX-TALK for her outstanding problem-solving and programming abilities.