

AIAT Annual Report Winter 2024

*Dear friends, well-wishers and supporters of the
Institute of Applied Technology/AIAT
College + ITI*

A short reminder about Auroville Institute of Applied Technology/AIAT

- AIAT was founded in 2004 with the financial aid of the German Government and numerous private donors in Germany. Its purpose is to empower rural youth with skills to earn a decent livelihood. It operates as a non-profit unit of the Auroville Foundation (more information is available on our webpage: aiat.in).
- AIAT is situated in one of the most backward areas of Tamil Nadu and serves youth from the bottom of the social and economic pyramid. 95% of our trainees depend on the availability of a stipend (BPL), with 40% belonging to the scheduled caste.
- AIAT adopts a holistic pedagogical approach that addresses the concerns of both stakeholders - the trainees and the companies involved.
- Since 2009, AIAT has conducted Central Government-recognized 1-2 years of industrial training programs under a Dual System of Training(DST) in collaboration with ten regional companies.
- Approximately 2000 trainees have been trained in Electronic Mechanics, Draughtsman Civil, Information Technology, Mechanical Engineering, Secretarialship, and Accounting at *NSQF Level 4, i.e. ITI level.*
- Since 2022, AIAT has been affiliated with Pondicherry University as a College of Applied Sciences offering three-year Bachelor in Vocation (B.Voc) degree courses in Electrical and Electronic Technologies, Software Development & Machine Learning, Production Technology and Automation, and Applied Electronics and Chip Design.



Here we are, and we hope that you are doing well.

As the year draws to a close, we, too, look back on our successes, helpers, hurdles, and humble beginnings *as AIAT turns 20 and - thanks to a generous Indian sponsor - we celebrate.*

As some may know, AIAT's journey started in 2004 with a simple course-training system. Through 'project-based learning' and the dual system of training, it morphed into a special vocational school (ITI). Today, it continues as a unique college in Applied sciences with three-year application-oriented Bachelor's programmes/B.Voc. for the rural bioregion.

All this has only been possible due to generous and continuous financial support in building the suitable infrastructure we received over the years from AVI-Germany, German government, many corporate donors from India, the industrial partnership with CII Pondicherry, the hard work of the AIAT team, the many volunteers and above all the perseverance of the AIAT management, who at all times wanted to overcome the hurdles and remain faithful to the vision/mission of helping the youth and their families in this region out of poverty.

It's a pity you're so far away. We invite you to celebrate with us, even if only in spirit (see attachment).

Further facts:

- Insights into the courses/ITI + College
- New colleagues
- Scholarship blessing
- Generous volunteers from Austria and India
- Management News
- Some of the promising projects
- The spirit of missing money hovers over everything
- Cyclone Fengal stayed with us for 4 days
- We seek partnerships

1. Vocational school courses/ITI

30 new trainees in the 'Electronic Mechanic' and 'Computer Hardware' courses, i.e. a total of 69 trainees at the ITI.

All but two passed their annual examinations with good to excellent results.



18000/month in an electrical company in Pondicherry (the average for vocational school graduates is around Rs 10000).

All graduates have found a job, which is extremely important in this country. Four with an Electronic Mechanic qualification earn Rs



'All the best for your future!'

Enrolment in the ITI has fallen further, and only the Electronic Mechanic and Computer Hardware courses are still in demand.

2. Applied university courses/B.Voc.

Currently, 27 students are enrolled in the Bachelor's courses: 20 are in Software Development and Machine Learning, five are in Renewable Energies, and two are in Chip Design.

The courses occur at three locations. This means the new bus is busy in the mornings, evenings, and days.

3. Students' growth and performance:

Most students joining AIAT B.Voc. courses come from rural government schools and are average higher secondary-level performers. During the last two years, we observed their growth; they are self-confident, enthusiastic, energetic, and interested. A few have shown excellent results in Pondicherry University's yearly examinations. All students of the 2023 batch passed their annual examination with medium to high scores. One male and one female student achieved the highest grade in the annual examination.



The B.Voc. 1st-year students from the various departments have completed the first phase of their 'line following' robot project. In this project, they apply their programming skills to solve the same problems as an autonomous industrial transport robot (path following, sensor use, obstacle detection

and avoidance). The 'line following' demonstration also impressed our ITI trainees. As a surprise for their success, our volunteer and project manager Andreas donated ice cream for everyone.

4. The intake in the B.Voc. courses:

Despite intensive and modified marketing, only 15 students enrolled for three courses this year. We see the main reasons for this:

- a)** The academic degree B.Voc. still needs to be discovered, especially in T.N. Students and parents prefer an established college with a mainstream B.E. degree.
- b)** As per the new Government policy, B.Voc. students can enrol in a B.E course in the concerned subject in the fourth year.
- c)** The B.Voc. courses still need to be listed in the Pondicherry government's sponsorship programme (despite great efforts on our part), and the students cannot receive a scholarship from the Tamil Nadu government either.
- d)** AIAT has yet to build its reputation as a skill-centric vocational institute of higher education, leading to a bachelor's degree in B.Voc. affiliated with Pondicherry University.

5. New colleagues

We have hired new teachers: Mr Pushparaj for the B.Voc course 'Production Technology'. He has done his master's in computer-aided design and Manufacturing (Mechanical) with 7 International and 14 National journals, has a wide range of outsourcing calibration service for various industries, and has teaching experience in ANNA university and Pondicherry-affiliated engineering colleges. He is a lifetime member of IISTE.

Mr Mohammad for the B.Voc course 'Renewable Energies'. He completed his undergraduate and master's degrees at ANNA University Chennai, and has over 10 years of teaching experience at colleges affiliated with ANNA University and Pondicherry University.

Mr Sanjay Tumati teaches our B.Voc. students in Applied Electronic and Chip Design. He has a master's degree from Texas A&M University and graduated from the elite IIT Bombay, He is an analog-IC design engineer with over 12 years of experience designing Analog Front ends and Power Management circuits. He has one year experience in Firmware programming and Board Design and Layout.

6. College students receive scholarships

Four-year students receive scholarships from an American foundation for their studies in 'Software Development & Machine Learning'.

Three second-year students from Tamil Nadu received scholarships from 'Reaching to the Stars' for their Software Development and Machine Learning studies.

Unfortunately, the government of Pondicherry still does not offer scholarships to students from the city. We have been endeavouring to be included in their list of eligible courses since the beginning.

Students from Tamil Nadu do not receive scholarships because we are affiliated with Pondicherry University. That's how it is - not only - in this country.

7. Volunteers Andreas Patuzzi and Mohan Furthmaier from Austria are supporting us this year. Andreas teaches/supports with IT lessons and projects like Scratch, Python, robotics, database and front-end development, computer vision, IOT and machine learning. He takes photography and social media (AIAT Instagram.com is now a joy) and organizes events, contacts and collaborations. Mohan supports our Professor of Mechanical Engineering with internships and project work (e.g. biogas plant). He has supported the students of the

Montessori School in learning welding and building a wheelbarrow. (see also: aiat.org.in/volunteers)

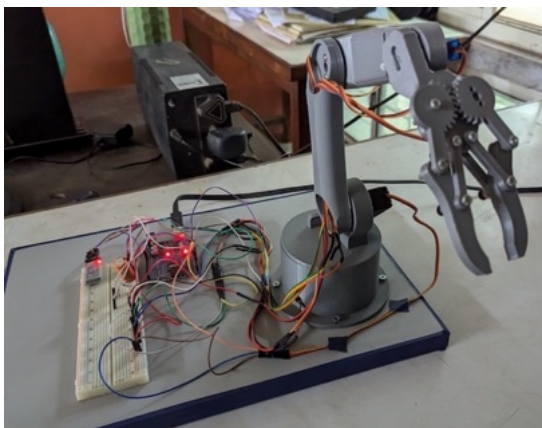


Six other C3 Stream Landdesign (Aura/Auroville) employees volunteer approximately 4-10 hours weekly. They support our Assistant Professor for Software Development, Ms Kayalvizhi, Mr Duraisamy, in lessons and internships, and

Mr Sanjay Tumati in the applied Electronics and Chip Design course.

8. Project work

Robotics Arm: As some of you know, AIAT teachers use project-based learning as a teaching method. Our electronics teacher, Mr S. Manikandan, is



a keen electronics engineer. Over the years, he has repeatedly developed interesting projects with the students: a remote-controlled car, a sensor-based rubbish bin, a hand sanitiser (in Corona Times) and now a robotic arm. He used the 3D printer to produce the mechanical parts and then used a microcomputer we had given as a gift

to develop the programmes to control the arm. The students were asked to lay the electrical cables and test the programme. We are thrilled!

Wheelbarrow: The Quinta Essentia Montessori school in the neighbourhood asked AIAT if we could help train to manufacture a wheelbarrow. Our teacher, Mr Pushparaj, trained six pupils (aged 12-16) in welding for 10 days. This is 'project-based learning' at its best! Our ITI trainees in Fitter then completed the wheelbarrow.



E-bike demo: The B.Voc. Renewable Energy students built an e-bike demo model in their curriculum. KINISI/Unit in Auroville had gifted us a motor for it. Under the guidance of Assistant Professors Mr Mohammad and Mr Pushparaj, a very old model that had already been made in AIAT was converted to demonstrate the functions of an e-bike.



Biogas plant and dryer for fruits: As part of the curriculum for 'Renewable Energies', the students built a biogas demo and a fruit dryer, e.g. for cashew nuts, under assistant professors Mr Mohammad and Mr Pushparaj. Unfortunately, the biogas plant is not working as planned. We are now seeking advice from experts.



Software & Machine Learning: The B.Voc. Second-year students have developed an AI-powered material management system for Stemland Auroville. The project uses a camera with a QR code to capture material inventory, while AI-based facial recognition identifies users to increase

security. This system aims to automate and self-organise material management. The solution is based on an ARM platform with Raspberry Pi, a front-end application in Python, and a back-end SQL database. It will provide an efficient and automated solution for material handling at Stemland Auroville.



The **Cloudflight Coding Contest** is an international competition for the 40th time this year with over 5000 participants. Our volunteer Andreas organised this contest for the first time in India and motivated our students and employees to participate. What a dedicated volunteer with a passion for his subject!.

9. Need to improve the current infrastructure:

- We need to improve our infrastructure, e.g., by building larger classrooms to accommodate 50 students instead of a maximum of 35, and modernising our computer, mechanical, and electronic labs.
- Solar system for power generation in the subject 'Renewable energies'
- A dedicated entrance gate and a path to the campus
- Three classrooms, one workshop, and one staff room, including furnishings.

10. Cyclone Fengal

You are receiving the annual report late this time: From Friday, November 29 to



Monday, December 2, a lot happened here for 4 days. The 1st Advent was drowned in masses of water, storms/100 km/h, power and water outages, lack of internet, and colonies of moulds and frogs haunted us. One becomes humble. The

workers who were repairing the main power line in Irumbai travelled there by boat. They probably had to work by diving. Heroes! The internet has only been

working again on the campus in Palmyra since this afternoon (11 December). Many trees have been uprooted, and some have damaged buildings, cables, roads, paths, etc.. But the sun and the birds are back! Who knows where they were hiding? (Photos: a damaged car shelter/ Irumbai campus; water in a workshop



We seek partnerships

Organisations and individuals who want to change higher education in India

- Supporting industrial partnerships for adjunct faculty to support courses
- Internships in companies
- Scholarships for students with poor economic background
- Supporting running expenses of the institute as it becomes self-sufficient
- Supporting infrastructure needed for all the courses
- Creating and running new courses in partnership with AIAT
- Open to collaboration in other areas for anyone inspired to support in any way.

We request pl. Contact AIAT Management regarding long term partnership or donations to AIAT. Lavkamad Chandra Director AIAT (lavkamad@aiat.in or Dr. Sanjeev Ranganathan, Principal AIAT (Sanjeev.r@aiat.in).

- AIAT's management assures you that your support will be used only for your specified purpose. Note that only 3% of the donated funds are spent on administration. Our management team operates voluntarily.
- Your donations are eligible for a tax deduction based on our country's regulations.

Important: Please always specify the project or purpose in your remittance to AIAT: 'AIAT Scholarship' or 'Donation for AIAT' to ensure your contribution reaches us.

It is important to specify: Please include your name and address in the transfer so we can send you the donation receipt.

Kindly inform us via e-mail at principal.aiat@auroville.org.in.

We can track your remittance and ensure you receive the donation receipt.

How do you remit your donation to AIAT?

1. For foreign donors

The most efficient method to donate to AIAT is through your local Auroville International (AVI) organisation. They can accept your donation, issue a tax receipt, and forward the fund to Auroville.

Locate your nearest AVI Center at

http://auroville-international.org/avi_centres. AVI-

Please specify that the donation is for AIAT, Auroville, India.

Send A Bank Transfer Directly To Auroville (SWIFT)

Please note that the government of India recently amended the law regarding foreign contributions (FCRA Act). All foreign contributions to the country must come to a single branch - the State Bank of India Main Branch, New Delhi. A new account was opened in the New Delhi SBI branch. Details are as follows:

Your bank will need to complete a SWIFT transfer.

Please ensure that the Beneficiary Name is listed as AUROVILLE FOUNDATION in all circumstances.

SWIFT Code: SBININBB104

IFSC: SBIN0000691

Bank Name: State Bank of India

Branch Code: 000691

A/C Holder Name: AUROVILLE FOUNDATION

A/c Number: 40106120526

Beneficiary: AUROVILLE FOUNDATION

Purpose: Please specify that your donation is for AIAT, Auroville, India

A/C Holder Postal Address:

Auroville Foundation

Auroville 605101

Tamil Nadu, India

Bank Postal address: FCRA Cell

State Bank of India

New Delhi Main Branch

11 Sansad Marg

New Delhi 110 001

Bank Phone No. 011-23374050

2. For Indian donors

INWARD REMITTANCE TO AUROVILLE UNITY FUND INDIAN ACCOUNT,
Social Science Research (100%)

Indian Inward Remittance Instructions

IFSC code: SBIN0003160

MICR code: 60 500 2007

A/c with State Bank of India
Branch: Auroville International Township Branch
Address: Kuilapalayam
AUROVILLE 605 101, INDIA
A/c Holder: Auroville Unity Fund SSR
A/c Number: 31612623238
(please specify that your donation is for AIAT)

*We wish you a Merry Christmas season
and a happy New Year.*

*May the new year bring us all
the peace we long for.*

AIAT Management Team



www.ariat.in * [instagram.com](https://www.instagram.com/ariat.in) * [facebook.com](https://www.facebook.com/ariat.in) * [linkedin.com](https://www.linkedin.com/company/ariat.in)

AUROVILLE INSTITUTE OF APPLIED TECHNOLOGY



Celebrating 20 Years of Excellence

We invite you to be part of this momentous event as we celebrate 20 years of academic excellence, innovation, and commitment!

The event will be chaired by

Our Chief Guest: **Dr. Rajneesh Bhutani**
Registrar
Pondicherry University

Our Guest of Honours: **Mr. M. Kalaiichelvan**
Managing Director
MANATEC Group of Companies

Dr. G. Seetharaman
Officer on Special Duty
Auroville Foundation



18th DECEMBER 2024, WEDNESDAY
10:00 AM @SRI AUROBINDO AUDITORIUM,
BHARAT NIVAS, AUROVILLE

Awaiting your esteemed presence,

Mr. Lavkamad Chandra Director & **Dr. Sanjeev Ranganathan** Principal

& AIAT Team



AUROVILLE INSTITUTE OF APPLIED TECHNOLOGY



Our 20th Anniversary is a special occasion to honor our history, recognize our dedicated members, faculty, and students, and celebrate our achievements. Let's come together to make this event great!

Agenda

- ▶ Tamizh Thaaai Vaazhthu
- ▶ Welcome Address
- ▶ Lighting of the Lamp
- ▶ Welcome Dance
- ▶ Director's Speech
- ▶ Chief Guest's Speech
- ▶ Guest of Honors' Speech
- ▶ Principal's Speech
- ▶ Prize distributions
- ▶ Cultural Programs
- ▶ Vote of Thanks
- ▶ National Anthem

RSVP

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Celebrating
20 Years of
Excellence

