A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)

Affiliated to Adikavi Nannaya University

Jagannaickpur, Kakinada.

DEPARTMENT OF COMPUTER SCIENCE

BEST PRACTICES

Industry-Academia Collaboration

DEPARTMENT OF COMPUTER SCIENCE

Industry-Academia Collaboration Practice

Objectives of the Practice

The primary objective of establishing strong industry-academia collaboration is to bridge the gap between academic knowledge and industry requirements. This practice aims to provide students with hands-on experience, exposure to real-world challenges, and knowledge of current industry trends. The intended outcomes include enhancing students' employability, promoting practical learning, fostering innovation, and enabling faculty to stay updated with industry standards. The underlying principle of this practice is to create a synergistic relationship between academia and industry, ensuring students are industry-ready through internships, guest lectures, workshops, and participation in competitions.

The Context

In the rapidly evolving technological landscape, there exists a significant gap between academic learning and industry expectations. Traditional classroom education often lacks practical exposure, which affects students' employability and readiness to face industry challenges. To address this issue, our department identified the need to establish strong collaborations with reputed tech companies.

Key contextual features that needed to be addressed included:

- **Lack of Industry Exposure:** Students had limited exposure to real-world industry practices, making it difficult for them to relate theoretical knowledge to practical applications.

- **Skill Gap:** A gap between the skills imparted through the curriculum and those demanded by industries was evident, affecting placement rates.

- **Limited Industry Interaction:** Minimal interaction with industry experts resulted in fewer opportunities for students to gain insights into emerging trends, tools, and technologies.

- **Competency Development:** The need to enhance students' problem-solving, technical, and soft skills to meet global industry standards.

By overcoming these challenges, the goal was to make students industry-ready and capable of innovating and solving real-world problems.

The Practice

The Industry-Academia Collaboration practice is designed to bring practical exposure and real-world learning into the academic environment. This is achieved through the following approaches:

1. **Memorandum of Understandings (MoUs):**
   The department had MoUs with Software companies like Krify Software Technologies Pvt. Ltd., amd Nyros Technologies. This helped the students to undergo trainings and internships under these companies flagship to reduce the industry-academia gap to a certain extent.

2. **Internship Programs:**
   The department collaborates with leading tech companies to offer internships to students. These internships provide practical exposure, allowing students to work on live projects, understand corporate culture, and gain hands-on experience with the latest technologies. The internship programs are either short-term (summer internships) or long-term (semester internships). This experience significantly enhances students' understanding and employability.

1. **Guest Lectures, Workshops and Field Visits:**
   Industry experts are invited regularly to deliver guest lectures and conduct workshops. Apart from the MoUs,, the Department has organized National Workshop on Internet of Things in collaboration with Codetantra, Hyderabad. Field Visits to the Software companies helped students to gain practical exposure to how a software company operates in real-time, the working environment, team collaboration, and organizational culture, giving them a practical understanding beyond theoretical learning. These sessions provide valuable insights into current trends, emerging technologies, and real-world challenges. Students benefit from direct interaction with industry professionals, helping them understand practical applications of their academic knowledge.

2. **Competitions:**
   The department encourages students to participate in national and international competitions such as hackathons, coding challenges, and innovation contests. Collaborating with industry partners enables students to work on real-world problem statements provided by companies. This fosters a culture of innovation, teamwork, and problem-solving.

3. **Curriculum Alignment:**
   Based on feedback from industry partners, the department makes periodic revisions to the curriculum. This ensures that students are learning the most relevant and in-demand skills. Courses like Data Science, Artificial Intelligence, Cloud Computing, and IoT are introduced as per industry demand.

4. **Faculty Development Programs:**
   To keep faculty members updated with emerging technologies, the department Faculty were encouraged to participate in various Faculty Development Programs (FDPs) with industry participation. This ensures that the faculty is equipped with the latest industry knowledge, which can then be imparted to students.

Constraints/Limitations:

- Coordinating with industry partners and maintaining consistent engagement can be challenging.

- Some students face difficulty in adapting to the fast-paced and professional working environment during internships.

- Limited financial and infrastructure resources sometimes hinder the scalability of this practice.

Evidence of Success

The success of this practice is evident through:

1. **Improved Placement Rates:**
   The placement percentage has significantly increased as students are better equipped with practical knowledge and industry-relevant skills. Students have secured placements in top multinational companies such as **Accenture, Infosys, Wipro, Cognizant and Tech Mahindra.**

2. **Enhanced Practical Skills:**
   Students participating in internships and workshops have demonstrated improved problem-solving, technical, and soft skills. They have also shown higher confidence in handling real-world challenges.

3. **Recognition in Competitions:**
   Several students have won awards and recognitions in various competitions, and innovation contests, showcasing their ability to solve industry-relevant problems.

The results indicate that the Industry-Academia Collaboration practice has significantly enhanced student employability, skill development, and innovation capabilities.

Problems Encountered:

- **Limited Industry Participation:** Initially, it was challenging to convince reputed companies to collaborate with the department. Building trust and partnerships required persistent efforts.

- **Skill Gap in Students:** Some students lacked the technical proficiency required to perform well during internships and competitions. Additional training and upskilling sessions were required to bridge this gap.

- **Time Constraints:** Managing academic schedules along with workshops, internship programs and competitions posed time management challenges for both students and faculty.

Resources Required:

- **Industry Partnerships:** Strong networking with tech companies to ensure consistent engagement.

- **Training Infrastructure:** Labs, software tools, and mentorship programs to upskill students.

- **Financial Support:** Funding support for conducting workshops, competitions, and faculty development programs.

- **Faculty Involvement:** Active participation of faculty members in facilitating internships, workshops, and mentoring students.

Inaugural of the 2- Day National Workshop on "Internet of Things"- November, 2018 in collaboration with Codetantra Pvt. Ltd., Hyderabad

Mr.Tomesh Jain, Codetantra explaining about "Internet of Things" to the participants of the Workshop

Students working with IoT Devices in the Workshop in Nov, 2018

Field Visit to Krify Software Technologies Pvt. Ltd. in March, 2019

Mr.K.Krishna Reddy, CEO, Krify Software Tech. Pvt. Ltd., explaining about Google Lens

Field Visit to Krify Software Technologies Pvt. Ltd. in Feb, 2020

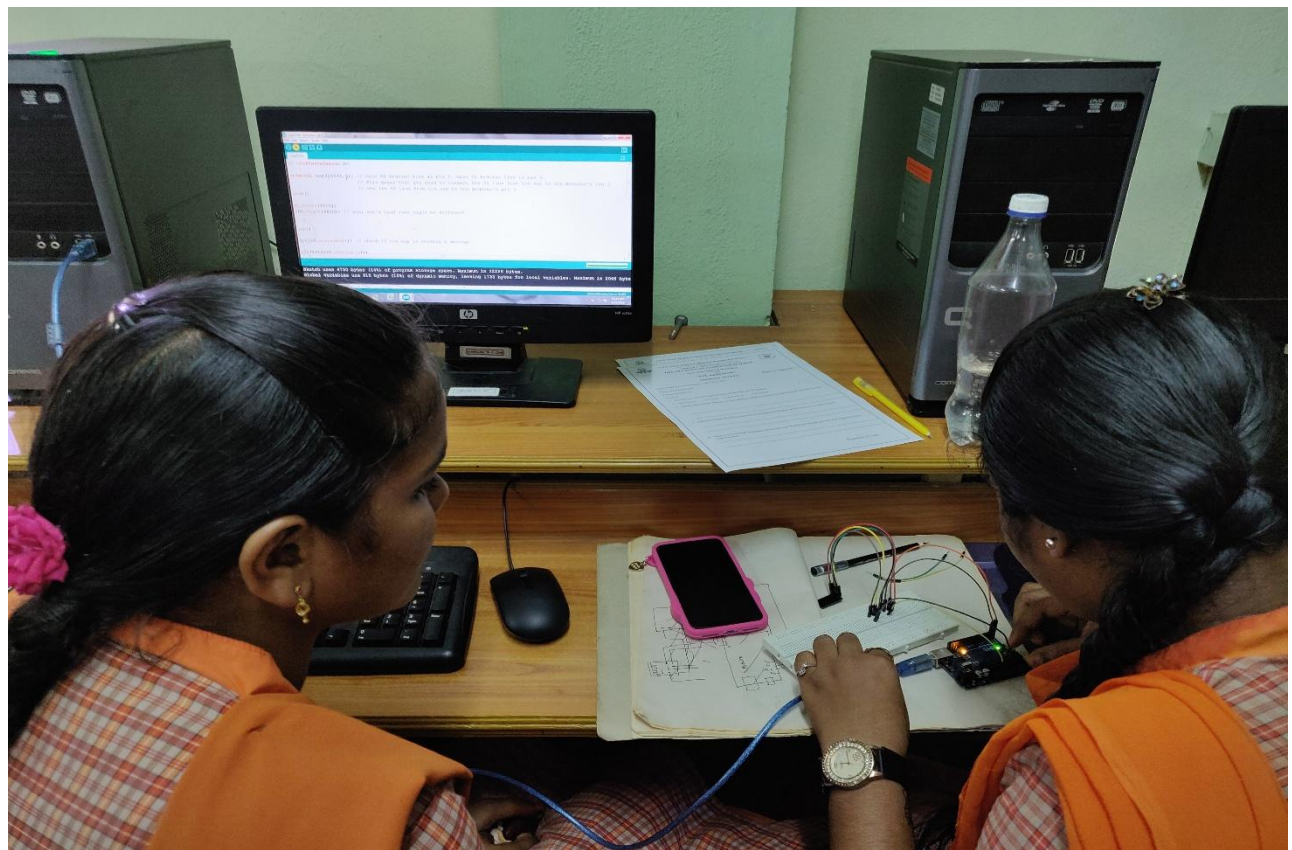**Students witnessing the Work environment at Krify Software Tech. Pvt. Ltd. in Feb, 2020**

5 Day Student training program on "IoT-Applications" in collaboration with Krify Software Tech. Pvt. Ltd., in August, 2019

Students working IoT Sensors in the 5 Day Training Program on "IoT-Applications" in Aug, 2019

Students working IoT Sensors in the 5 Day Training Program on "IoT-Applications"

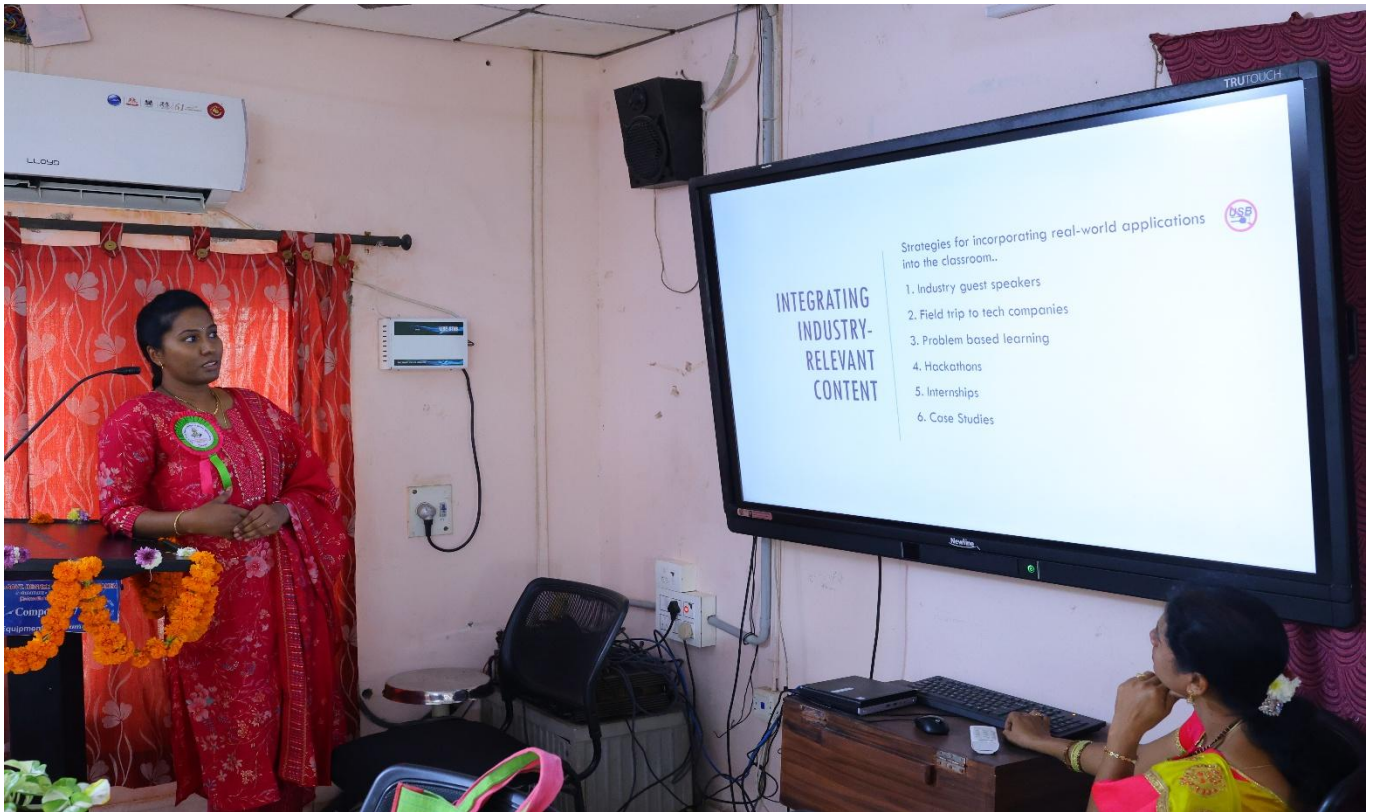**MoU with Nyros Technologies,Kakinada in March, 2023**

Workshop on "Emerging technologies in the field of Computer Science" by Mr Pavan Kumar Mangalampalli, CEO, Nyros Technologies, March, 2023

Career Guidance on "Significance of Certification" by M.Sirisha, Tech. Analyst, Nyros Technologies to the final year students in December, 2023

Students listening to M.Sirisha, Tech. Analyst, Nyros Technologies

Ms.Githika Tondapu, NASA-Huntsvile, speaking on Integration of Industry relevant content into Curriculum in the International Workshop on "Redefining Possibilities: A Tech Odyssey into the future" on 9 January, 2024

Students participation in the activity conducted in the Workshop

Workshop on "Responsible Gaming" on 29 Jan, 2025

Student Participation in activity in the Workshop on "Responsible Gaming"

Glimpses of Evidences of Success with Students placements and prizes won by students in different competitions

Students with their IoT Project at AAVISHKAR 2K20 organized by AKNU

K.Rajeswari and G.Roshini of III B.Sc.(MPCS) won Second Prize for their IoT Project at AAVISHKAR 2K20 organized by AKNU

నూతన 'ఆవిష్కార'ణలతో..

- ఉత్సాహంగా ప్రారంభమైన 'ఆవిష్కార్ 2కే20'
- దేశ పురోగాభివృద్ధిలో యువత పాత్ర కీలకం: వీసీ

కార్యక్రమంలో ప్రసంగిస్తున్న వీసీ జగన్మోహనరావు, చిత్రంలో జక్కంపూడి విజయలక్ష్మి

తాము రూపొందించిన ప్రాజెక్టు పనితీరును వివరిస్తున్న విద్యార్థినులు

సర్పవరం (కాకినాడ రూరల్): నూతన ఆవిష్కరణలు, కొత్త ఆలోచనలతో విద్యార్థులు తమ ప్రతిభను చాటేందుకు ఆవిష్కార్ 2కే20 టెక్నికల్ ఫెస్ట్ వేదికగా నిలిచింది. వివిధ జిల్లాల్లోని పలు కళాశాలల విద్యార్థులు తమ ఈవెంట్లతో ఆకట్టుకున్నారు. కాకినాడ రూరల్ తిమ్మాపురం పంచాయతీ పరిధిలోని అచ్చంపేట జంక్షన్ వద్ద ఆదికవి నన్నయ్య యూనివర్సిటీ ఎంఎస్ఎన్ క్యాంపస్లో బుధవారం ఎంసీఏ విభాగం ఆధ్వర్యంలో ఆవిష్కార్ 2కే20ను ఘనంగా నిర్వహించారు. అన్నా వీసీ మొక్క జగన్మాధ రావు ఈ ఫెస్ట్ను ఉదయం జ్యోతి ప్రజ్వలన చేసి ప్రారంభించారు. ముఖ్యఅతిథిగా జక్కంపూడి విజయలక్ష్మి హాజరయ్యారు. ఈ సందర్భంగా వైస్ ఛాన్సలర్ జగన్మాధరావు మాట్లాడుతూ దేశ పురోగాభివృద్ధిలో యువత పాత్ర కీలకమన్నారు. కంధనం కన్నా విజ్ఞానమే శాశ్వతమని, దానిని పెం పొందించుకోవాలన్నారు. ఆవిష్కార్ కార్యక్రమం

విద్యార్థుల్లో దాగి ఉన్న విజ్ఞానాన్ని బయటకు తీసే వేదిక అన్నారు. ఇటువంటివి నిరంతరం జరగాలన్నారు. రాష్ట్ర ప్రభుత్వం ఆవిష్కరించిన 'దిశ యాప్ ఎంతో ఉపయోగకరమన్నారు. వైఎస్ఆర్ సీపీ పీఏసీ సభ్యురాలు జక్కంపూడి విజయలక్ష్మి మాట్లాడుతూ విద్యార్థులు మారుతున్న టెక్నాలజీకి అనుగుణంగా తమ తెలివితేటలను పెంపొం దించుకోవాలన్నారు. శాస్త్రీయ విద్యను, ప్రస్తుత విద్యకు గల వ్యత్యాసాన్ని వివరించారు. భారత దేశంలో ఉత్పత్తులను ఇతర దేశాల వారు తమ పేటెంట్ హక్కుగా భావిస్తున్నారన్నారు. కం ప్యూటర్ కంటే మనసు, మెదడు తెలివైనవని, కొత్త కొత్త ఆవిష్కరణలో ముందుకు సాగాలని

సూచించారు. దిశ యాప్ గురించి వివరించారు. క్యాంపస్ ప్రత్యేకాధికారిణి ప్రశాంత శ్రీ, ఎంసీఏ విభాగాధిపతి స్వామి ఆవిష్కార్ గురించి వివరిం చారు. కార్యక్రమంలో విభాగాధిపతులు, విద్యా ర్థులు పాల్గొన్నారు.

మొత్తం 13 ఈవెంట్ల ప్రదర్శన

టెక్ఫెస్ట్లో మొత్తం 13 ఈవెంట్లను ప్రదర్శిం చారు. వీటిలో టెక్నికల్ ఏడు, నాన్ టెక్నికల్ ఆరు ఉన్నాయి. ఉభయగోదావరి జిల్లాలతో పాటు వివిధ జిల్లాల నుంచి సుమారు 50 కళాశాలలకు చెందిన 550 విద్యార్థులు హాజరయ్యారు. ఓన్జే ఎస్ జేఎం మాలిక్ చేతులు మీదుగా బహు మతులు అందజేశారు.

News Paper Clipping of students with their Projects at AAVISHKAR 2K20

Students with their IoT Projects at National Science Day Celebrations, 2020

K.Vimala Devi and Md.Sultana won First Prize in Paper Presentation

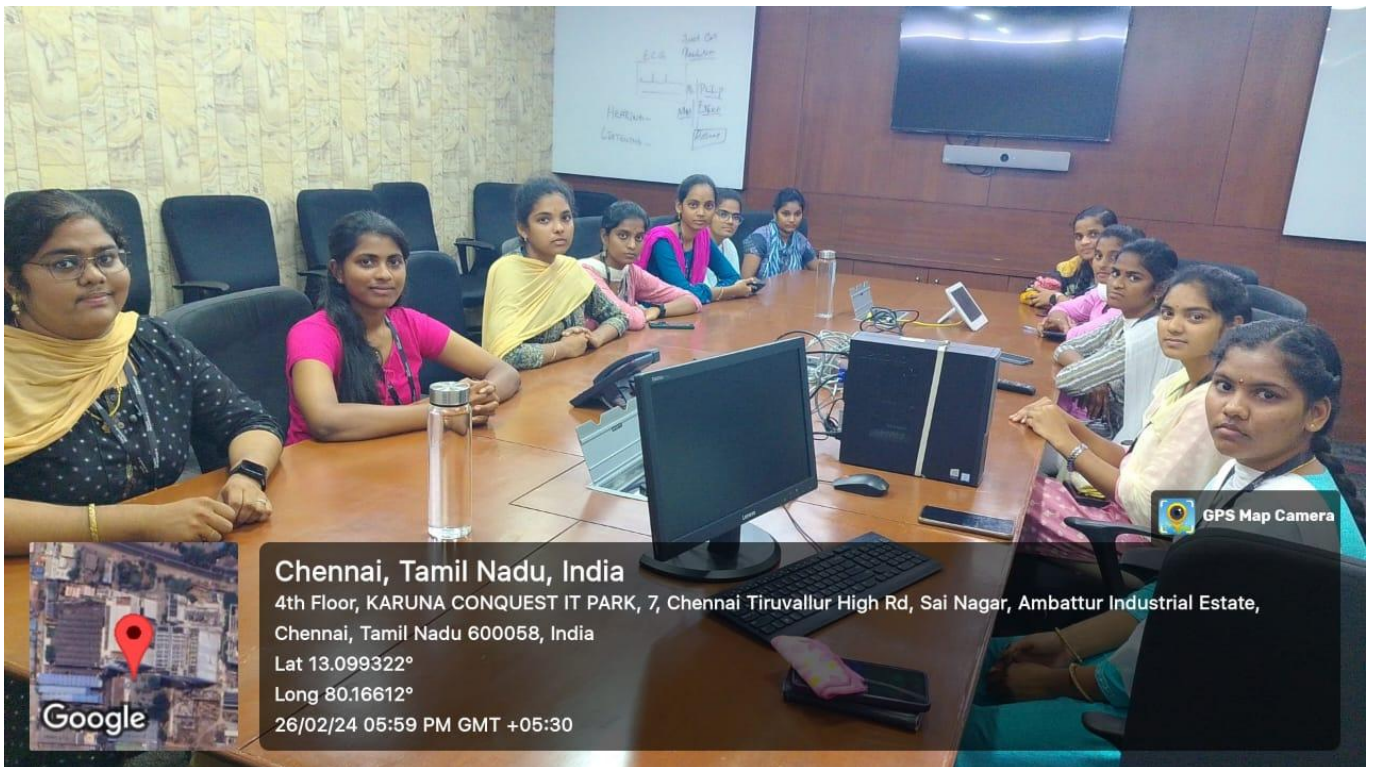**J.Pavani Maha Lakshmi, I B.Sc.(MPCS) won First Prize at LUMEN-2019**

Students with their Prizes at LUMEN-2019

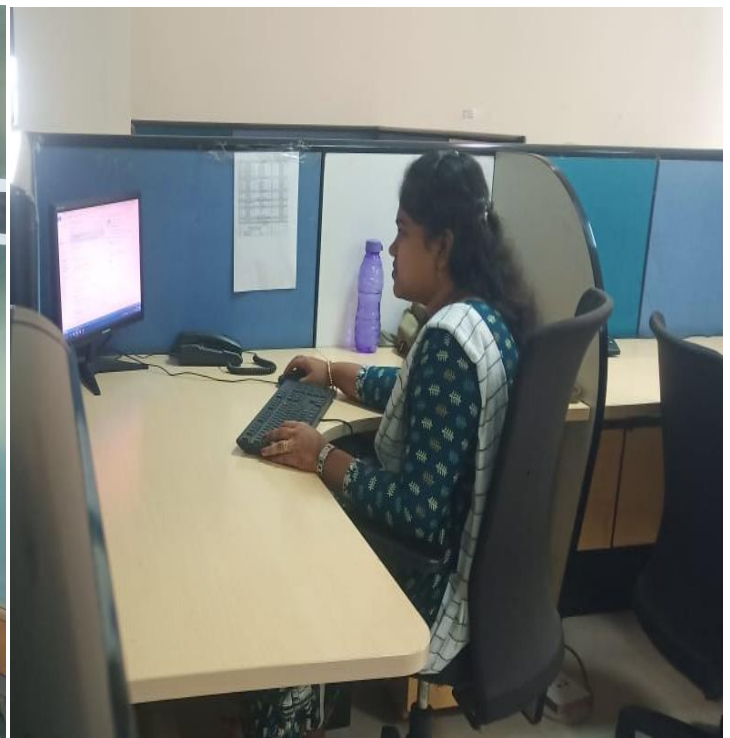**P.Tanuja of 2018-2023 B.Sc. (MPCS) Batch palced at Cognizant, Hyderabad**

Student during their Internship at Tech Mahindra, Chennai in February, 2024

Chennai, Tamil Nadu, India
4th Floor, KARUNA CONQUEST IT PARK, 7, Chennai Tiruvallur High Rd, Sai Nagar, Ambattur Industrial Estate, Chennai, Tamil Nadu 600058, India
Lat 13.099322°
Long 80.16612°
26/02/24 05:59 PM GMT +05:30

Students who were placed at Tech Mahindra, Chennai

Students who were placed at Tech Mahindra, Chennai

K.Lakshmi Priya Deepika, B.Sc.(MPCS) working as IT-Trainee at Bambino Pasta Food Industries Pvt Ltd., Hyderabad