M.A.M. SCHOOL OF ENGINEERING

(Accredited by NAAC, Approved by AICTE, New Delhi; Affiliated to Anna University, Chennai)
Trichy- Chennai Trunk Road, Siruganur, Tiruchirappalli-621105

(An Autonomous Institution)

MANDATORY DISCLOSURE

SUBMITTED IN ACADEMIC YEAR 2024-2025

ENGINEERING & TECHNOLOGY (UG & PG)

TRICHY- CHENNAI TRUNK ROAD, SIRUGANUR, TIRUCHIRAPPALLI-621105

E-mail: principal@mamse.in

Mobile: 7708000972

MANDATORY DISCLOSURES

The following information shall be given in the information Brochure besides being hosted on the Institution's official Website.

The onus of the authenticity of the information lies with the Institution ONLY and not on AICTE.

Name of the Institution	:	M.A.M. School of Engineering
Address of the Institution	:	Trichy – Chennai Trunk Road Siruganur
City & Pin code	:	Trichy – 621105
State/UT	:	Tamilnadu
Contact Phone Number	:	+91 7708000972
Email	:	principal@mamse.in
Website	:	www.mamse.in

Name and address of the Trust/ Society/ Company and the Trustees:

Name of the Trust	:	Maluk Educational Health and Charitable Trust
Address of the Trust	:	49, Raja Colony, Collector office road
City & Pin code	:	Trichy- 620001
State/UT	:	Tamilnadu
Contact Phone Number	:	+91 9994954320
Email	:	peer4914@yahoo.com
Website	:	www.mamse.in

Name and Address of the Vice Chancellor/ Principal/ Director:

Name of the Principal	:	Dr. P. Ranjith Kumar
Address	:	99, Sankar Nagar, Mangamma Nagar, Srirangam
City & Pin code	:	Trichy- 620006
State/UT	:	Tamilnadu
Contact Phone Number	:	+91 9894958888
Email	:	principal@mamse.in
Website	:	www.mamse.in

Name of the affiliating University: Anna University, Chennai

Members of Governance Council:

Sl. No.	Name of the Member	Designation	Category
1	Al Haj M.A.Peer Mohammed	Correspondent, M.A.M. School of Engineering.	Chair Person of Governing Body
2	Ms.Khairunisa Peer Mohammed	CEO, M.A.M. School of Engineering.	Management Nominee
3	Dr.P.Ranjith Kumar	Principal, M.A.M. School of Engineering	Member Secretary of Governing Body.
4	Dr.R.Srinivasan	Former Member Secretary, Tamil Nadu State Council for Science and Technology	Management Nominee
5	Dr.V.Anadakrishnan	Professor, Department of Production Engineering, NIT, Tiruchirappalli.	Educationalist nominated by Management.
6	Shri.V.Ramachandran	Senior Deputy General Manager, Kothari Sugars and Chemicals Ltd, Kattur, Trichy.	Management Nominee
7	Dr.P.Lilly Florence	Dean – S&H, M.A.M. School of Engineering.	Teachers of the College
8	Prof.R.Ramanathan	Associate Professor, Department of Mechanical Engineering, MAMSE.	Teachers of the College
9	Dr.U.Natarajan	Professor (CAS), Department of Mechanical Engineering, Government College of Engineering, Srirangam, Tiruchirappalli.	Nominee from Department of Technical Education, Govt. of Tamil Nadu.
10	Dr.T.Senthilkumar	Professor and Dean, Department of Automobile Engineering, University College of Engineering, Bharathidasan Institute of Technology (BIT) Campus, Tiruchirappalli.	Nominee from Anna University, Chennai.
11	Shri.A.Manoharan	Advocate, Tiruchirappalli	Management Nominee
12	Shri.M.Vivekananthan	Chairman, Moral Resource and Research Foundation (NGO), Trichy.	Management Nominee

Members of Academic Council:

Sl. No.	Name of the Member	Designation
1	Dr.S.Senthil Kumaran	Professor, Department of Mechanical Engineering, Anna University, Chennai.
2	Dr.B.Sathyabama	Professor, Department of ECE, Thiagarajar College of Engineering, Madurai.
3	Dr.S.R.Sumathy	Associate Professor, Department of Civil Engineering, Alagappa Chettiar Government College of Engineering and Technology, Karaikudi.
4	Dr. A.Nagappan	Registrar, Vinayaka Mission's Research Foundation (Deemed to be University), Salem.
5	Dr. M.Arul Mozhi	Professor, Department of Petrochemical Technology, University College of Engineering, BIT Campus, Trichy.
6	Dr. A.Santakumari	Additional General Manager, BHEL, Trichy.
7	Mr.P.Vimal	Director, Sang Engineering and Consultancy Services, Trichy.
8	Prof.G.Thiraviya Suyambu	Member Secretary
9	Prof.M.Pandian	Controller of Examinations
10	Head of the Departments	All Department
11	Prof.M.Paneerselvam	Teachers Nominated by Institution
12	Prof.R.Ramanathan	Teachers Nominated by Institution
13	Prof.Beula Elizebeth	Teachers Nominated by Institution
14	Prof.K.Sathish kumar	Teachers Nominated by Institution

Frequency of the Board Meeting and Academic Advisory Body:

Council/Board	Frequency of Meeting
Governing Council	Once in every six months
Academic Advisory Council	Once in every six months

Organizational chart and process:

https://mamse.in/Committees_Cells/Org%20Chart.pdf

Nature and Extent of involvement of Faculty and students in academic affairs/ improvements

- Experienced faculty members are retained to ensure effective teaching.
- Encourage the staff members to attend FDP, workshops and seminars to enrich their skills.
- Use of ICT tools enriches the learning experience of the students inside and outside the classroom.
- Student participation in co-curricular activities and presentation of their papers in symposiums and conferences are encouraged.
- Through several preparations, including Group Discussions and Mock Interviews, students are enabled to present themselves in campus interviews.
- Conduct special classes for slow learners for lab and theory classes. Counselling is extended for slow learners.

Mechanism/ Norms and Procedure for democratic/ good Governance

- Progressive and dynamic management ensures full autonomy for conduct of all academic and other activities.
- College promotes the culture of participative management.
- The day-to-day activities are monitored by a team consisting of Principal and Dean.
- Heads of Departments are empowered to take decisions relating to academics and other student issues.
- To ensure efficiency and effectiveness, a number of administrative, academic, co-curricular, and general bodies have been constituted with their duties and responsibilities stipulated.
- There are Administrative Bodies-Governing Council, Planning and Monitoring Board and Functional Committees like Internal Quality Assurance Cell (IQAC), Hostel Committee, Library Committee, Examination Cell, Disciplinary Committee, Internal Compliance Committee, Anti-Drug Committee, Anti-Ragging Committee, Grievance Redressal, SC\ST Committee, Women Empowerment Cell etc. The delegation of powers at all levels is clearly defined and strictly followed.
- Regular HODs' meetings, functional committee meetings and department meetings are held to discuss and take decisions on important matters.
- Faculty are encouraged to improve their qualifications by enrolling for doctorate degree, participate in FDPs, FTTPs, SDPs, Conferences, Seminars and Workshops.
- Periodic monitoring is carried out by IQAC and general audits to check the implementation of all systems and procedures.
- A transparent Faculty Appraisal system is done to notify the faculty on their strong points and areas that need consolidation.

Student Feedback on Institutional Governance/ Faculty performance

- The effectiveness of faculty members in content delivery and assessment are evaluated by students through the online feedback system. The parameter to which the feedback provided is as follows:
- Faculty coming to the class on time and engaging regularly.

- Preparation made by the faculty on the subject.
- Faculty's knowledge on the latest developments in the subject area.
- Faculty's ability to maintain discipline in the class.
- Mentoring and Counseling offered by the faculty to the needy students.
- Faculty's appreciation and feedback on the students' performance.
- Ability to take class audibly and clearly.
- Usage of various methods and materials like OHP/ Presentation to take class.
- Ability to write and draw legibly.
- Teacher's ability to explain the concepts well and provide adequate examples.
- Ability of the faculty to give instructions to the students according to their understanding.
- Fair and impartial valuation of the answer papers.
- Regular conduction of assignments tests and return the answer papers on time.
- Various feedbacks such as Course feedback, Student feedback, Teachers Feedback, Alumni Feedback and Employer's Feedback course, Exit feedback etc., are also collected and necessary corrective measures are incorporated for improvement.

Grievance Redressal mechanism for Faculty, staff and students

- To create a platform where students can point out their problems, regarding academic and non-academic matters.
- Get suggestions from the students for improvement.
- Take necessary steps for improvement in the light of grievances.

Establishment of Anti Ragging Committee:

https://www.mamse.in/ar.html

Establishment of Online Grievance Redressal Mechanism:

https://www.mamse.in/Grievance%20Redresel-21-22.pdf

Online Grievance Redressal Mechanism is provided in the college website:
https://www.mamse.in/grievances.html

Establishment of Internal Complaint Committee (ICC):

https://mamse.in/Committees_Cells/ICC.pdf

Establishment of Committee for SC/ ST:

https://mamse.in/Committees_Cells/SC_ST.jpg

Internal Quality Assurance Cell (IQAC):

https://mamse.in/Committees_Cells/IQAC.jpg

Name of the programmes approved by the AICTE:

Academic Year (2024-2025)

Sl.No.	Degree	Branch
1.	B.E.	Aeronautical Engineering
2.	B.E.	Computer Science and Engineering
3.	B.E.	Electronics and Communication Engineering
4.	B.E.	Electrical and Electronics Engineering
5.	B.E.	Mechanical Engineering
6.	B.E.	Mechatronics Engineering
7.	B.E.	Bio Medical Engineering
8.	B.Tech.	Artificial Intelligence and Data Science
9.	B. Tech.	Information Technology
10.	M.E.	Power Electronics & Drives
11.	M.E.	Computer Integrated manufacturing

For each programme the following details are to be given:

Academic Year (2024-2025)

Sl. No.	Degree	Branch	No. of Seats Sanctioned	Duration	Fees
1.	B.E.	Aeronautical Engineering	60	4 Years	As per Tamilnadu Government norms
2.	B.E.	Computer Science and Engineering	60		
3.	B.E.	Electronics and Communication Engineering	60		
4.	B.E.	Electrical and Electronics Engineering	30		
5.	B.E.	Mechanical Engineering	30		
6.	B.E.	Mechatronics Engineering	30		
7.	B.E.	Bio Medical Engineering	60		
8.	B.Tech.	Artificial Intelligence and Data Science	60		
9.	B. Tech.	Information Technology	30		
10.	M.E.	Power Electronics & Drives	18	2 Years	
11.	M.E.	Computer Integrated manufacturing	9		

Academic Year (2024-2025)

Sl. No.	Degree	Branch	No. of Seats Sanctioned	No. of Students admitted under various Categories
1.	B.E.	Aeronautical Engineering	60	27
2.	B.E.	Computer Science and Engineering	60	52
3.	B.E.	Electronics and Communication Engineering	60	53
4.	B.E.	Electrical and Electronics Engineering	30	16
5.	B.E.	Mechanical Engineering	30	18
6.	B.E.	Mechatronics Engineering	30	10
7.	B.E.	Bio Medical Engineering	60	58
8.	B.Tech.	Artificial Intelligence and Data Science	60	45
9.	B. Tech.	Information Technology	30	27
10.	M.E.	Power Electronics & Drives	18	0
11.	M.E.	Computer Integrated manufacturing	9	0

Academic Year (2024-2025)

Sl. No.	Degree	Branch	Number of Seats	OC	BC	BCM	MBC	SCA	SC	ST
1.	B.E.	Aeronautical Engineering	60	1	4	4	7	0	11	0
2.	B.E.	Computer Science and Engineering	60	0	20	3	12	2	15	0
3.	B.E.	Electronics and Communication Engineering	60	0	19	3	11	3	17	0
4.	B.E.	Electrical and Electronics Engineering	30	0	4	2	4	0	6	0
5.	B.E.	Mechanical Engineering	30	0	5	3	3	0	7	0
6.	B.E.	Mechatronics Engineering	30	0	4	1	3	0	2	0
7.	B.E.	Bio Medical Engineering	60	0	13	2	7	1	35	0
8.	B.Tech.	Artificial Intelligence and Data Science	60	1	12	3	12	2	15	0
9.	B. Tech.	Information Technology	30	0	9	0	6	1	10	1
10.	M.E.	Power Electronics & Drives	18	0	0	0	0	0	0	0
11.	M.E.	Computer Integrated manufacturing	9	0	0	0	0	0	0	0

Training and placement cell:

Sl.No	Name	Designation	Department
1.	Ms.P.Kavitha	Associate Professor	Training and Placement
2.	Ms.Harshitha	Soft Skill Trainer	Training and Placement
3.	Mr.Sugumar	Aptitude Trainer	Training and Placement

Placement Record:

No. of Students Placed	2023-2024	2022-2023	2021-2022
UG	104 / 196	121 / 131	127 / 130

Faculty: List of Faculty members:

https://mamse.in/md/AICTE%20Faculty%20List%202025-26.pdf

Fee:

- Details of Fee, as approved by State Fee Committee for the Institution Time schedule for payment of Fee for the entire Programme – **May to July**

Number of scholarship offered by the Institution, duration and amount:

AICTE Scholarship Details (2024-2025): Nil

UG/PG - SC/ST/BC/MBC Scholarship:

Name of the scheme	Number of students benefited by government scheme and amount		Number of students benefited by the institution's schemes and amount	
	Number of students	Amount	Number of students	Amount
SC /ST /SCC Scholarship	325	20071800		
BC / MBC Scholarship	367	337275		
First Graduate	313	7825000		
7.5 Government Reservation	65	5850000		
Pudhumai Pen Scholarship	66	792000		
Institutions Scholarhsip Schemes			550	7471500
Total as per Unique List	**789**	**34876075**	**550**	**7471500**

Estimated cost of Boarding, Lodging and Food in Hostels: Rs.55,000 / year

Information of Infrastructure, Classrooms, Labs, Library, Computer Centre and Seminar Hall Size:

https://mamse.in/md/INFRASTURE%2C%20LAB%20LIST%2C%20HOSTEL.xlsx

Terminals LAN WAN:

Sl. No.	Course Type	Total Student	Number of Terminals with p4 processor or higher			Number of Terminals on LAN /WAN			Number of Printers		
			Required	Available	Deficiency	Required	Available	Deficiency	Required	Available	Deficiency
1	B.E./ B.TTECH	1800	180	180	0	180	180	0	10	15	0

Software:

Software required	Name of the Software available
System software -(3)	1. WINDOWS XP SERVICE PACK 3 2. WINDOWS 7 WINDOWS 2008 SERVER 3. WINDOWS 2008 ENTERPRISE EDITION
Application Software -(20)	1. LINUX REDHAT5.0 FEDORA 12 CENT OS 2. GCC 3. PHP 4. LINUX KERNEL 5. OPEN OFFICE 6. APACHE WEB SERVER 7. MOZILLA FIRE FOX 8. MYSQL 9. MICROPLAYER 10. MOZHILA THUNDERBIRD 11. FILEZILLA 12. IRC INTERNET RELAY CHAT 13. MY PAINT 14. OPENSSH 15. WINEHQ 16. XAMP 17. OPEN VPN 18. SMART ROUTER 19. OPEN FX 20. SWF TOOLS

Network Connectivity:

Network Connectivity	
Total Students	540
Required Bandwidth in Mbps	300
Available Bandwidth in Mbps	300
Deficiency %	0

Number of Drawing halls / Conference halls:

Degree	Number of Studios Required	Number Available	Deficiency %	Area of each drawing hall required (sq.m.)	Area of the drawing hall available (sq.m.)	Deficiency %
B.E.	1	1	0	132	132	0

Barrier Free Built Environment for disabled and elderly persons:

https://mamse.in/AQAR-2023-2024/c7/7.1.5.pdf

Library:

Type of Institution	Engineering Courses
Projected Area (sq.m)	400
Area available(sq.m)	420
Deficiency %	0.00

Library Books and Journals:

S. No	Course(s)	Number of titles of the books	Number of Volumes	Number of National Journals	Number of international Journals
1	**BE(AERO)**	**426**	**2224**	**6**	**6**
2	**BE(CSE)**	**397**	**3302**	**6**	**6**
3	**BE(ECE)**	**601**	**3546**	**6**	**6**
4	**BE(EEE)&ME(PED)**	**670**	**4036**	**12**	**12**
5	**BE(MECH)&ME(CIM)**	**613**	**6837**	**12**	**12**
6	**BE(MECHT)**	**493**	**1796**	**6**	**6**
7	B.TECH (AIDS)	**101**	**514**	**6**	**6**
8	**B.E (BIOMEDICAL)**	**100**	**515**	**6**	**6**
9	B.TECH (IT)	**100**	**500**	**6**	**6**
10	**S&H**	**711**	**6178**	**-**	**-**
11	**General**	**1176**	**1611**	**-**	**-**
	Total	**5388**	**31059**	**66**	**66**

Innovation Cell:

https://mamse.in/Committees_Cells/Innovation%20Cell.pdf

Compliance of the National Academic Depository (NAD), applicable to PGCM/ PGDM Institutions and University Departments: **NA**

List of Sports/Games facilities available:

Physical Education

Sl. No.	Description	Details
1	**Total area of the play ground (sq.m)**	15,000
2	**Details of the Outdoor Games available**	1 Volley ball court 2 Kho kho court 3 Basket ball court 4 Cricket practice pitch 5 Hockey, Football, Cricket ground 6 Kabaddi court
3	**Details of the Indoor Games available**	1 Table tennis 2 Carrom 3 Chess 4 Shuttle court
4	**Details of Gymnasium available**	1 Flat bench press 2 T bar rowing 3 Abdominal board adjustable 4 Spider rowing 5 Cable cross over pulley with handle 6 Cable cross over pulley 7 Inclined bench press 8 Station upper gym 9 Station Multigym lower 10 Pull over machine 11 Bench press 12 Adductor 13 Air walker 14 Stepper
5	**Funds allotted to Physical Education**	200000

Soft Skill Development Facilities Soft Skills

- Training on Personality Development, Leadership Skills, Communication Skills, Interview skills and Aptitude training are offered to students of all branches.
- Conduct of Courses
- Practical sessions are arranged along with theory classes to give hands-on training on technical skills.
- More emphasis is given to practical sessions for the students to get expertise in trouble shooting the technical problems.
- Certificates are given for certified course which help students during placements.
- Activity based teaching is adopted for training soft skills which enables the student to communicate confidently in real life situations.

Resource facilities

- Sessions are handled by eminent resource persons from external organizations.
- Teaching faculty are also encouraged to obtain certifications from certifying bodies to support the conduct of training sessions.
- Theory classes are conducted in the classrooms.
- Department specific laboratories are utilized for conducting practical sessions.
- The Training and Placement Cell consists of a Coordinator and trainers.
- Soft skills training are given to improve the performance of students in interviews, group discussions and thus secure excellent placement in reputed companies.
- To aim for 100% placement, the first year students are trained with Machine Learning, C, C++, JAVA SCRIPT, Python, Auto CAD, MS- Office Automation.
- A vibrant Placement and Training department grooms students for placement by providing technical and soft skills training.
- Students in short of communication skills are additionally trained on language and soft skills.
- Activity based teaching is adopted which enables the students to interact with peers in target language and participate enthusiastically. This builds confidence in them to face real life situations.
- Mapping of desired course outcomes & the syllabus and matching them with the industries' dynamic requirements to enhance students' employability.
- Personality, Communication and Soft Skill Development training is systematically given for the students.
- Staff and Student community successfully enroll in NPTEL courses and complete them more productively.
- Naan Mudhalvan course is offered for the students to enhance their potential skills.

Teaching Learning Process:

- The students can be assessed to identify their learning levels by different mechanisms. The college has a well-established counseling system/mentorship system in place. Students are assigned to, identified faculty who act as their mentors/counselors. They conduct regular meetings with their student mentees to monitor their academic progress. The assessment procedure can be a statistical process of making the three levels like Category A (High) [Advanced learners], Category B (Average) and Category C (low) [Slow learners]. The Identification criteria for the category are given below. Counselors keep a close eye on these students and keep their parents informed about their performance.

- Student-centric strategies are supported by time-proven educational methods for excellent learning results.

  Our institution emphasizes approaches that are extremely experiential, participatory and problem solving methodology as shown below.

- **Experiential Learning**

  It's a type of learning in which students will learn in their doing and reflect on what they have learned. It includes opportunities for students to engage them academically. As per University regulations practical classes are conducted regularly. Beyond the curriculum, some of the experiential learning is in practice as given below.

  - Internships
  - Industrial Visit
  - Workshops

- **Participative Learning**

  The "participative learning" engage the students to participate as fully as possible in the learning process. And also will assist the students to achieve their desired goal and outcome by various participations. Some of the participative learning is listed below

  - Seminar Presentation
  - Quiz Participation
  - Symposium in and other colleges
  - Students Innovation
  - SIH Participation

- **Problem Solving Methodology**

- This methodology aims to develop the knowledge of the student in defining the problem statement. It also determines the cause of the problem, identify, prioritize and selecting alternatives for the cause of the problem. The methodology used in our institution is

  - Project
  - Case Study
  - Tutorials

Curriculum and syllabus:

https://cac.annauniv.edu/aidetails/ai_ug_cands_2021ft.html

Internal Continuous Evaluation System and place

- The institution insists the faculty members to prepare a question bank from previous year University papers along with answer key.
- Daily class tests are conducted in each and every subject before commencement of the internal assessment tests.
- The slow learners are identified and special coaching classes are conducted.
- Retests are conducted for students who failed to secure 60% of marks in continuous assessment tests.

- ❖ After completion of internal assessment tests, the progress reports are subsequently sent to the parents.
- ❖ The students who secured less than 75% of attendance are asked to attend class after their parents' meet.

Industry Linkage : MoUs with Industries:

- ❖ The institution has signed MoUs under various departments and covering activities like training, placement, development of training facilities for students, Guest Lectures, participation in technical events etc. Some of the activities with which MoUs have been signed are listed out in the attachment:

https://mamse.in/AQAR-2023-2024/c3/3.5.2.pdf

LoA and subsequent EoA till the current Academic Year:

https://mamse.in/md/26%20AICTE%20EOA%202010-2025.pdf

Best Practices adopted, if any:

- ❖ Facilitate active learning environment to students through participative learning, experiential learning and collaborative learning.
- ❖ Apply the engineering concepts to carryout research projects.
- ❖ Motivate the students to provide solutions for industrial and societal problems.
- ❖ Encourage the students to participate in Industrial Design Competitions.
- ❖ Persuade the students to apply for research funding from sponsoring agencies.
- ❖ Equip the students to commercialize their research outcomes as startup /product.
- ❖ Interdisciplinary student groups are formed according to their research interest.
- ❖ Mentors are allotted for each group to guide and motivate the students.
- ❖ Skill development workshops and training programs are organized for students by inviting subject experts, practitioners, resource persons from organizations of national and international eminence where students enrich their skill in their domain. The guiding standard behind workshops is to ensure that students can link theory with practice, apply their knowledge and develop new skills.
- ❖ Refresher courses are offered to equip the students to participate in design and project competitions.
- ❖ The institution collaborated with industries for student internships and industry projects.
- ❖ National and international events/contests are disseminated among the students and interested/ skilled students are identified through mentors.
- ❖ Mentors take the responsibility of finding ways to educate, stimulate, and make them to effectively participate in the contests.
- ❖ The interactive and participatory activities create a feeling of responsibility in students and makes learning a process of construction of knowledge.
- ❖ The Context in current scenario, getting employable is a big challenge for engineering graduates as there is a gap between the academia and industry. Students lag in converting their theoretical knowledge into practical applications. These problems could be overcome by encouraging them to do internships, industrial projects and participate in design competitions. Ultimately, active learning environment will make the students participative, experimental, and collaborative and ensure students learning to a higher level.
- ❖ Teacher Teaches Teachers (TTT) Scheme · the TTT scheme is considered an stand-alone educational

pedagogy in the development of teachers' knowledge and professional skills. This is an initiative in the process of meeting the new requirements of engineering education. · The sessions are being conducted during working hours. If time could not be found in usual working hours, extra hours are utilized beyond regular academic schedule and also during summer and winter vacation. Internal faculty experts are identified and are utilized as resource persons for the sessions.

Best Practices in Academics:

- Conducting Bridge Courses at the beginning of the semester.
- Remedial classes for slow learners and additional support for toppers.
- Academic Advisory Committee for all departments provide inputs on latest advancements in the field, better content delivery methods and current industry requirements.
- Solar energy used through Solar Water Heaters in hostels.
- Waste water management done through use of bio-plant and sewage treatment plant.
- Rain Water Harvesting for all buildings and construction of culverts during rainy season to contribute towards campus development.
- Various students' clubs formed to promote the students' talents and skills in an excel level.
- Outcome Based Teaching and Learning is one of the best practices which aims to enhance academic performance, improve placement and encourage higher education.