# AMET

**ACADEMY OF MARITIME EDUCATION AND TRAINING**
**DEEMED TO BE UNIVERSITY**
(Under Section 3 of UGC Act 1956)

*STEERING QUALITY EDUCATION*
AMET

*Celebrating* **25** *Years*

## INFORMATION BROCHURE

# B.Sc. (Hons) Data Science - 3 Years

**TWO years in AMET, India &
ONE year in EDGE HILL University, United Kingdom**

**Degree Awarded by**
## Edge Hill University
United Kingdom

*IN SCIENTIA OPPORTUNITAS*

# B.Sc. (Hons) Degree in Data Science

## Programme Outline

| | |
|---|---|
| **Programme Duration** | 3 Years Full-Time |
| **Programme Nature** | Twinning Programme |
| **Start Date** | September 2019 |
| **Department** | Department of Information Technology, AMET, India<br>Department of Computer Science, EDGE HILL University, UK |
| **Location** | First Two years in AMET, India &<br>Third year in EDGE HILL University, United Kingdom |
| **Degree Offered by** | EDGE HILL University, United Kingdom |

## Why should one choose this Programme?

Data Science is an interdisciplinary field that combines the magic of programming, mathematics and business. Combined with Machine Learning, it helps to identify a future trend which can be used to derive actionable insights for creating future impact. These skills will help you prepare for the role of a Data Scientist. As a Data Science aspirant, you will be emphasising of the knowledge to share from the quantitative analysis to programming concept and extended to business intelligence. Data science can add value to any business which can use the data well.

## What Does a Data Scientist Do?

◙ Empowering management and controlling officers to make better decisions
◙ Directing actions based on trends, which in turn help to define new goals
◙ Identifying opportunities
◙ Decision making with quantifiable, data-driven evidence
◙ Testing these decisions
◙ Identification and refining of target audiences
◙ Recruiting the right talent for the organization

## Why study at AMET & EDGE HILL?

Academy of Maritime Education and Training (AMET), a Deemed-to-be University from India and Edge Hill University from United Kingdom are two premier Institutions involved in imparting quality education and capacity building of human resources. The aim is to create industry ready professionals who are to meet the demands of the emerging industries. EDGE HILL University provides world-class facilities and resources supporting International students. The Department of Computer Science of Edge Hill University is based on the state-of-the-art Technology Hub. This purpose-built development offers highly contemporary suites of outstanding facilities for students. Modern computer laboratories are equipped with high-specification computers, high-resolution screens and the latest hardware and software.
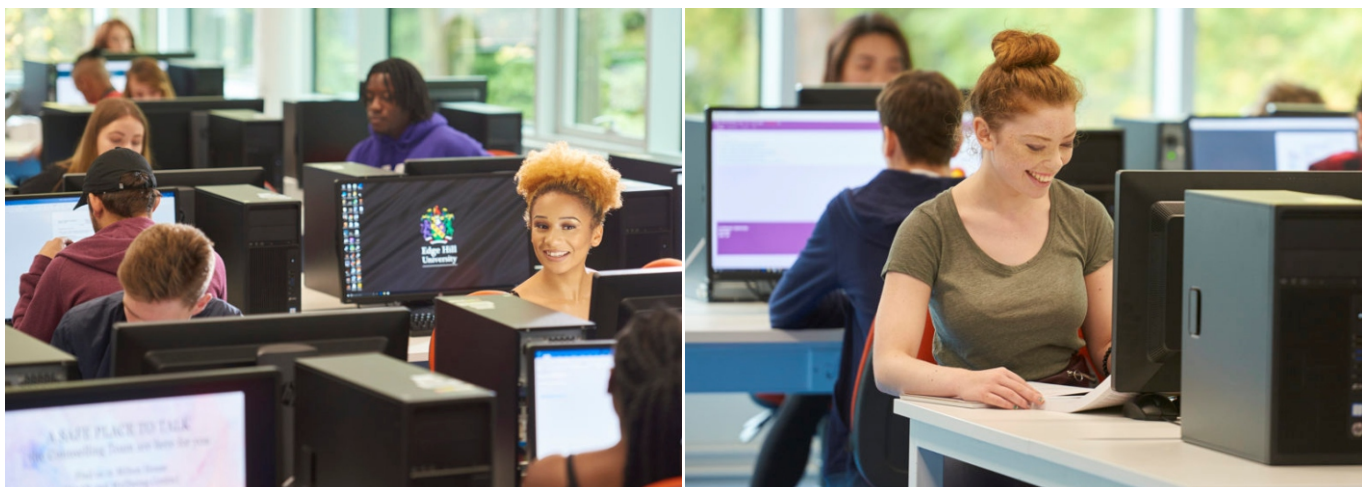
Bsc (Hons)programme in Data Science, is intended to be a 'Twinning programme', has been drafted and designed by experienced academicians from both Institutions, who have deep involvement in research. Between AMET and Edge Hill University, there is a wide pool of academicians with experience and industry experts. The programme team from both Institutions are specialists in computing and active researchers in areas including artificial intelligence, machine learning, and business intelligent systems. This team will be involved in transferring their knowledge, skills and attitudes to the students. The programme will provide opportunities to students to work with the industry on some modules. This will hone their theoretical foundation and enrich it with enhanced with real-life experience.

The first two years will be based at AMET, Chennai which will help them in establishing a strong foundation towards a successful career. During the first two years, the student will undertake foundation modules in Mathematics, Communication Skills, and choices from a range of courses from Computer Science and Statistics through a 'blended learning' approach using a strong platform on Information and Communication (ICT).

During the third year, courses on core paradigms such as Big data and Visualization, complex computing systems which will critically discuss and contrast leading edge technologies and discuss the potential for applying them to existing and future complex systems, as well as exploiting existing technologies in new contexts. This will be facilitated by Edge Hills University with laboratory practice, Research and Development Projects and sharing the platform with industry experts. Upon completion of the credits required, degree will be offered by the Edge Hills University, United Kingdom.

## Career Prospects

NASSCOM in its survey on the Future Skills says that the total demand for Artificial Intelligence, Big Data /Analytics and Data Science by 2021 is 800,000 and the right talent employable by 2021 is 570,000 creating a shortage of talent pool of 230,000. It also mentions that 1 million professionals are to be reskilled and 1 million potential employees and students to be skilled in the new emerging technologies.

Upon completion of the programme, Graduates could take roles such as:

- ▣ Data Scientist
- ▣ Process Analyst for Process Industries
- ▣ Data Solutions Analyst
- ▣ Technical Business Process Analyst
- ▣ Business Analytics Tech Consultant
- ▣ Statistical Analyst
- ▣ Web & Social Media Analyst
- ▣ CRM Analyst
- ▣ Further study (Computer Science Masters courses, PhD research)

## Eligibility Criteria

Age : Minimum 17 Years

Merit Requirements :

| Qualification | Minimum Eligibility to Apply | Additional Details |
|---|---|---|
| 12th | 50% | Mandatory Subjects: Physics, Chemistry, Mathematics from a recognized board |
| AMET-CET | 50% | Selection will be based on the ranking |

## Admission Process

(i) **Register and Apply:** Interested candidates can apply online/offline with required information

(ii) **Selection:** Entrance Examination - AMETCET will be conducted on Aptitude, Mathematics, Physics and Chemistry. Shortlisting of candidates will be done on the rank obtained in AMETCET

(iii) **Final Selection:** Candidates are selected based on their performance in 10+2, AMETCET, University level Counselling, involvement in extra-curricular activities, and a statement of purpose.

## Curriculum Structure

Mathematics and Computational methods are the foundation science courses. B.Sc (Hons) in Data Science programme will help you master skills and tools like Clustering, Decision trees, R Programming, Python, Big Data and Data Visualization tools, Data modelling, Statistical functions, Machine Learning algorithms that use predictive analytics to solve real-time decision-making problems. Final year project work is designed to involve real time applications from industry realms and research problems from research projects to aid problem solving, data modelling and data analysis.

## How will I study?

The programme is delivered through a combination of classroom lectures, student-led seminars, workshops, tutorials, hands-on practical and Technology Enabled Learning (TEL). Classes will be highly interactive, with the practical application of concepts of a key factor, including case studies drawn from real-life.

## How will I be assessed?

A variety of assessment methods will be used on this degree including formal examinations, lab practical and project report. Continuous assessment is carried out to have 40% weightage in the total marks of each course and 60% weightage is given to end semester examination and each course is assessed for a total of 100 marks. Continuous assessment is conducted through module like wise tests, model exam, assignments/tutorials and attendance.

## Study Environment

The Departments of both Institutions are equipped with the state-of-the-art laboratories and smart classrooms. Computer laboratories have the cutting-edge technology hardware and software. The campus and the hostel are Wi-Fi-enabled. The central library is enriched with the learners with resources in printed and as well as digital forms. Learning resources include Programming platforms and tools for web development, data modelling and analysis, software platforms for implementing and testing machine learning algorithms. The departments have strong links with industry and the curriculum is kept updated to meet the demands of industry for placing the students. Supported with various cells and clubs, the students can shape their profile by voluntary participating in co-curricular and extracurricular activities.

## Scholarships

Edge Hill University offers a range of scholarships with a competitive application process for prospective full-time undergraduate students. These scholarships are not linked to academic success and celebrate determination, talent and achievement beyond coursework, for instance in creativity, enterprise, ICT, performance, sport or volunteering.

# EDGE HILL UNIVERSITY CAMPUS

## UNIVERSITY AN OVERVIEW

EDGE HILL University, a160-acrebeautiful campus is sited in the historic town of Ormskirk, North West England surrounded with greeneries, lakes, modern and historic academic buildings. Ormskirk is connected with train and bus routes to travel across the UK. The North West of England offers a diverse population and international appeal from the cities of Liverpool and Manchester with their shopping, culture, sporting heritage and vibrant nightlife to the beautiful countryside of the Lake District, Sefton coastline and North Wales. International airports in both Liverpool and Manchester provide a gateway to the rest of Europe.

EDGE HILL University has achieved Gold, the highest rating in the National Teaching Excellence Framework (TEF), for delivering consistently outstanding teaching, learning and outcomes for its student. Global Teaching Excellence Spotlight Award has been received for the quality of support and engagement infrastructure to the students. Shortlisted for University of the Year in the WhatUni Student Choice Awards 2019 for its outstanding achievements in student support, graduate employment and innovation, as well as its significant role in transforming lives. The University also received Best Student Accommodation in the UK and Ireland and Best Value for Money, National Student Housing Awards 2018. It is recognized as the University of the Year for Student Retention 2018.



Department of Computer Science

## FACILITIES AND RESOURCES

- ▣ 24/7 library access during term time
- ▣ £30 million sports complex
- ▣ 24/7 access to computer suites
- ▣ Arts Centre for year-round programme of performance, music and cinema

## ACCOMMODATION

- ▣ 24-hour security
- ▣ high speed Wi-Fi enabled Room



Library

## SCHOLARSHIPS

EDGE HILL University has a range of scholarships on offer to international students. All full fee-paying international students applying for a course lasting at least one academic year will be considered for a scholarship. You can only hold one scholarship at any one time and all scholarship awards are made at the discretion of Edge Hill University.

| SCHOLARSHIP NAME | AMOUNT AWARDED |
|---|---|
| International Foundation Scholarship | Up to £1,200 |
| Undergraduate Development Scholarship | Up to £1,200 |
| International Achievement Scholarship | Up to £2,000 |

## ENGLISH LANGUAGE REQUIREMENTS

For those students whose native language is not English, they will need to provide evidence from either one of the following.

- ◈ Secure English Language Test (SELT)
- ◈ Trinity College London Integrated Skills in English (ISE)
- ◈ Pearson Test of Academic English (PTE)
- ◈ Cambridge English Advanced(CAE)
- ◈ Cambridge English Proficiency (CPE)
- ◈ Internet- based TOEFL (iBT)

If the current level of English is lower than the minimum requirement, the students may still be offered a place on the course they have applied for with full attendance on our Pre-Sessional English Course.

### Pre-Sessional English Language 8 weeks, full-time

The Language Centre at Edge Hill University offers an 8 week Pre-sessional English Language course. This is an ideal programme of study if you need to improve your academic skills, focus on your target discipline and raise your overall English Language.

### Our IELTS requirements are as follows:

| | |
|---|---|
| International Foundation Programme | 5.0 with no element below 4.0 |
| Undergraduate Programme | 6.0 with no element below 5.5 |

# AMET UNIVERSITY CAMPUS

## UNIVERSITY AN OVERVIEW

AMET, located at Kanathur, just half an hour drive from Chennai, on the breezy shore of the Bay of Bengal, is a state-of-the-art University devoted to imparting Maritime knowledge and training to cadets and students.

Established as a Private Maritime Institute through AMET Trust with just 14 cadets in 1993. AMET has, through its uncompromising strides of excellence and ambitious zeal to serve the students and nation, morphed into the first University for Maritime education in India with proud strength of over 3000 students enrolled in different intensively maritime and marine related UG and PG programmes. Now, AMET-trained Seamen sail proudly throughout the world spreading its popularity and quality training made possible through our excellent academic and professional strengths.

The proof of our quality lies in the various graduates from our

School of Maritime Studies, School of Engineering & Technology, School of Science & Humanities and School of Management Studies occupying important positions in industrial houses throughout the world.

## Academic

- Creatively integrated Maritime Curriculum meeting the physical, intellectual and professional needs of the cadets and the students.

- Maritime Courses like Marine Engineering, Nautical Science, Pre Sea Training for Graduate Mechanical Engineers have found favour with our cadets interested in a career with the Merchant Navy.

- Maritime related courses such as Naval Architecture and Offshore Engineering, Petroleum Engineering, Mechanical Engineering etc., have been designed keeping in mind industry requirements.

- Management Programmes such as Shipping & Logistics, Oil & Gas Management are tailor made to address

emerging issues in this dynamic sector.

- Qualified, experienced and committed academic faculties.

- Teaching through advanced technological aids.

- Uncompromising, quality-ensuring & student-friendly autonomous evaluation system headed by a Controller of Examinations.

## Infrastructure

- LCD and OHP supported smart classrooms, resourced labs and ambient technical workshops.

- Providing the second best experience of 'seeing before sailing' through sophisticated Ship Simulator, Ship Replica (AMET Jewel) and Swimming Pool crisis - rehearsals.

- A state of the art TRIBON Software lab and DNV Sesam Software for Naval Architecture Students.

- A spacious hostel with national and international cuisines.

- Gymnasium furnished with international fitness equipments and supplemented with qualified trainers.

- Medical Care and Recreational facilities.

- High speed Wi-Fi Internet connection on the campus.

- A well equipped digitalized open accessed library with plenty of books and international maritime journals and newspapers and a help-desk manned by ready-to-help librarians.

## Discipline

- Zero tolerance against ragging.

- Student counseling – the 'mentor' system with a qualified counsellors.

## Extracurricular Activities

- Professional sports and recreational activities efficiently managed by well qualified physical directors.

- Inspiring patronage of to bring out the creativity, latent talents and histrionic skills of the students.

## Placement

- Generating 100% placement from global shipping giants, shipyards, ports, dredging companies etc.

- AMET routine of Job on Joining (JJ)

- Students' employability – enhancement through communication-enrichment effectively done by English and Soft Skills Departments.

- International certification encouraged – IELTS training offered on campus

## Invitation to become AMETians

- With the sensitive and caring management, dedicated faculty and staff, consistent infrastructural upgrading and its relentless commitment to professional excellence, students' reservation and Maritime Research and Publications, AMET is fast evolving as a resource center for Maritime education and training. AMET offers an exciting "Pre Sea training".

- Skill Development is mandatory to join the course and obtain degree. To make the students employable academically, physically and morally to earn a degree from capable, value added Programmes like Communication Skills, Internship, Physical Education (Yoga & Meditation) and foreign language courses.

- Join AMET. We will take care of you and your future.

## RECOGNITION

AMET was recognized by Directorate General of Shipping (DG Shipping) in the year 1993 for offering Marine Engineering, Nautical Science, GME, and ETO Courses.

AMET was conferred with Deemed to be University Status under De Novo category on August 2007 by University Grants Commission under Sec.3 of UGC Act, 1956.

All the Technical Courses offered at AMET are approved by All India Council for Technical Education, New Delhi

The National Assessment and Accreditation Council (NAAC) an autonomous institution of the University Grants Commission assessed AMET and Accredited during November 2015. (The accreditation is an indication of standards of quality as set by the NAAC and valid for a period of five years from 16-11-2015).

AMET is certified to ISO 9001:2015 QMS Standard by Det Norske Veritas for Design, Development and Conducting Maritime Training Courses, Programmes, Examinations and Assessments.

Det Norske Veritas- Germanischer Lloyds (DNV-GL) world renowned Classification society bestowed the highest **Grade A1 (Outstanding)** to AMET continuously for FIVE years after Comprehensive Inspection Programme (CIP) conducted under the authority of Directorate General of Shipping, Government of India.

## ACCREDITATION

Accreditation by approving agencies is a stamp of quality. AMET in pursuit of uncompromising quality in every endeavor has obtained accreditation from various agencies such as CRISIL, RINA (Royal Institute of Naval Architects), WMU (World Maritime University) Sweden.

Directorate General of Shipping, Govt. of India is conducting accreditation/grading process through Det Norske Veritas - Germanischer Lloyds (DNV-GL) for all the Institutions of Maritime Education in India. Det Norske Veritas - Germanischer Lloyds (DNV-GL) world renowned Classification society bestowed the highest Grade A1 (Outstanding) to AMET after Comprehensive Inspection Programme (CIP) conducted under the authority of Directorate General of Shipping, Government of India, Mumbai.

Royal Institution of Naval Architects (RINA) is a world renowned and highly respected international professional institution and learned society whose members are involved at all levels in the design, construction, maintenance and operation of all marine vessels and structures. RINA has members in over ninety countries, and is widely represented in industry, universities and colleges, and maritime organizations world-wide.   The Naval Architecture program at AMET has the distinction of obtaining accreditation with the highest rating by RINA.

Credit Rating and Information Services India Limited (CRISIL) is a global analytical company providing ratings, research, and risk and policy advisory services. CRISIL has awarded the highest rating for the Maritime courses held by AMET. We also get the highest appreciation by CRISIL every year.

AMET's quality training and professionalism has been recognized in the form of Awards and Agreements like Sailor Today Training Award, Seatrade Asia Awards etc...

Collaboration with Various Global Maritime Institutions and Universities, strong and goal oriented industry institute-interface and increasing international student's enrollment lend an additional impetus and vibrancy to the already robust AMET. Recently AMET has signed a Memorandum of Understanding with World Maritime University, Sweden and Danish Maritime University etc.

The quality and standards of all programs conducted at AMET are certified on the basis of inspection carried out under ISO 9001:2015 by DNV.

# FEE STRUCTURE OF BSc (Hons) Degree in DATA SCIENCE 2019-2022 (3 Years)
## II YEARS IN AMET, I YEAR IN UK

| COURSE FEE DETAILS | I | | | II | | | III |
|---|---|---|---|---|---|---|---|
| | July'2019 | Nov'2019 | Mar'2020 | July'2020 | Nov'2020 | Mar'2021 | Edge Hill Fee |
| Tuition Fee | 97000 | 90000 | 85000 | 97000 | 90000 | 85000 | 10800 POUNDS |
| Library Fee | 5000 | | 5000 | 5000 | | 5000 | |
| Soft Skills Training Fee | | 5000 | | | 5000 | | |
| Uniform Fee (To be paid as separate DD) | 3000 | | | 3000 | | | Optional Fees — Per Week |
| Text Books Fee (To be paid as separate DD) | 5000 | | 5000 | 5000 | | 5000 | |
| Term Fee | 110000 | 95000 | 95000 | 110000 | 95000 | 95000 | |
| Annual Fee | | 300000 | | | 300000 | | Living Expenses(only for VISA Purpose) |

**Note :**
- Caution Deposit (Refundable) Rs 10000/- to be paid along with I Year I term fee
- Examination Fee has to be paid every Semester separately
- IELTS Training Fee has to be paid separately, if opted from University
- DD in favour of "AMET UNIVERSITY, PAYABLE AT CHENNAI"

## Recognition as a Leader in Maritime Education



*"Lifetime Achievement Award 2017"* presented by **Shri NitinGadkari**, Hon'ble Minister of Road Transport and Highways, Shipping and Water Resources, River Development and Ganga Rejuvenation, Government of India to the **Chancellor Dr. J. Ramachandran**, AMET for his **meritorious** and **exemplary** contributions to the global Shipping Industry on the occasion of World Shipping Forum 2017 Convention conducted by the Institute of Marine Engineers (India), Chennai Chapter on 23rd November 2017

# AMET
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### DEEMED TO BE UNIVERSITY
(Under Section 3 of UGC Act 1956)
Chennai, Tamil Nadu

## Toll Free : 1800 108 3030

For Enquiry & Application details, contact:
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093444 08532,  093810 55898
: admission.amet

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