

MSc in Engineering Business Management

A University of Warwick Management Programme for Practising Managers

This course is **not** recognized by All India Council of Technical Education (AICTE) and National Board of Accreditation



University of Warwick

WMG : A Unique Institution

Warwick Manufacturing Group (WMG) is a division of the School of Engineering at the University of Warwick, U.K. The largest manufacturing group in Europe, WMG is a unique institution offering unrivalled postgraduate education to over 1300 students around the world each year.

Its programme of education, research and collaboration amounts to over £ 100 million a year. It is the biggest manufacturing group in Europe & renowned throughout the world.

Research Synergies

WMG is a pioneer in industry - sponsored research and has ongoing collaboration with hundreds of companies world wide.

It has extensive laboratory and workshop facilities including the world-class Engineering Hall and a new Warwick Digital Lab which houses some of the most advanced digital research and education programmes in the world. The Warwick Innovations Manufacturing Research Centre is also housed within WMG.

Postgraduate Programmes

WMG's Masters Programmes are designed to develop skills in management and leadership in Manufacturing, Engineering, Automotive, Logistics, Aerospace and other sectors and are suitable for students with a wide range of backgrounds and aspirations.

WMG uses its strong bonds with industry to draw real-world insights into its teaching and to create a dynamic learning culture leading to understanding and experience of the business world coupled with technological excellence.

Main features are

- Flexibility of study and extensive choice of elective modules
- World class WMG research and its synergies with the masters programme
- Distinguished speaker series with guests from industry and governments

Faculty

Very few academic institutions have the background breadth, depth or caliber of industrial collaboration that has been a defining character of WMG over many years. This means the course material is delivered by tutors who have considerable experience of determining and implementing solutions in business - often at a very senior level in prestigious companies.

Partnership with India

The CII and WMG have worked together for over a decade. The Group understands the need of Indian industry better than any other UK institution.

India is fast becoming a manufacturing economy and, more it can learn from the expertise of organizations like WMG, the more competitive it will be as a country. The Group has links with many of its top engineering / manufacturing companies which include Tatas, TVS Motor, Sundaram Clayton and others and has been instrumental in helping these companies achieve global competitiveness.

MSc in Engineering Business Management (ACE)

Achieving the status of a world-class business demands fundamental changes in any organization.

Drivers of change include:

- The impact of global markets
- Time-compression in product and process development
- New ideas in business and operations management
- Technology advances
- The importance of managing people in a culture of empowerment and teamwork.

These factors place critical demands on human resources. Successful industry now needs broader people, more developed people. People at all level require wider perspective combined with the ability and motivation to manage change. WMG's Engineering Business Management programme, which is known as ACE programme in India, has been developed to support this need and has been operating effectively in the UK and internationally for over 30 years.

Participating organizations have found that the success of the programme has been demonstrated by effective learning transfer into the work-place and the sharing of experiences between diverse industries.

- Lord (Prof) S K Bhattacharyya, Director WMG

CEO's SPEAK

I take pride in TVS being a hot bed of innovation and bright ideas. The catalyst for this turnaround has been the CII Warwick programme. The influence of this programme has manifested in the increase in our capabilities and knowledge skills of all concerned and has been invaluable in creating a learning organization. - Mr Venu Srinivasan, Chairman & Managing Director, TVS Motor Company Limited

The MSc in Engineering Business Management of Warwick Manufacturing Group is a unique opportunity offered to those concerned and connected with manufacturing, for upgrading their knowledge and enhancement of capabilities as managers. When the manufacturing sector is looking up, businesses have to strive hard to sustain the globally competitive capabilities of their managers.

CII has done a pioneering contribution by bringing the programme to India, which offers, not only the managers but the sponsoring companies, an avenue for raising their standards. The programme is unique since it offers flexibility in attending different modules. Not only the managers get higher degree but companies benefit through the assignments and project work done by the participating managers. All this is made available, in India at a very reasonable cost. - Mr J N Godrej, Managing Director, Godrej & Boyce Mfg Co Limited

ACE and it's Objectives

Achieving Competitive Excellence

Competition is a two edged sword. It poses challenges and at the same time opportunities. Achieving Competitive Excellence is a programme designed for those who see the opportunity to achieve sustaining competitiveness. ACE programme meets needs to realize the opportunity being created by competition.

ACE programme aims to develop leadership and managerial skills amongst middle level managers who in the future are likely to lead innovation, operational excellence and change in the fast changing business environment for business excellence.

In our new business environment, our top and bottom line growths would be determined by our ability to :

- a. introduce new products faster, cheaper and better than competition
- b. command pricing power through brand creation and building
- c. highly efficient operations in plants, logistics and in the supply chain
- d. transform to becoming an engineering company to create own know-how for products and manufacturing technology.

This is achieved through a practical broad- based vocational postgraduate education, providing an understanding and new skills in the key value adding areas, viz.

- Business environment and strategic management
- Innovation and the development of markets, new products and processes; the management of engineering and manufacturing operations and supply chains; core and emerging technologies in manufacturing and engineering; the management of projects, finance, people, quality, IS & IT
- Change management, continuous improvement in product, process and people

In addition to the above, the fundamentals or “business basics” e.g. Quality, Finance, HRM, Basic Management Skills and Enablers e.g. Project Management, IS & IT, R & D would also be covered.

To lead and manage any business, the managers need knowledge and skills in ALL the key value adding activities.

Structure

The course require the participants to undertake the following in a term upto three years

Course Work

- **Module attendance**
- **Post Module Assignments (PMAs)**

The course modules cover a wide range of Business, Operations / Technology related subjects as choice, which consists of 5 days in the classroom (face to face). Remainder consists of self-study and work based assignments.

Each module consists of 37 hours of directed tuition (the standard working day in India is (8.30 am to 5.30pm)) and a participant is expected to spend a minimum of a further 40 hours per module on the post module assignment.

Schedule of modules for a year is drawn on the basis of options exercised by participants ensuring that each participant gets more than one opportunity to attend his chosen modules.

In India, approximately 8 - 10 modules are held every year at the premises of CII Naoroji Godrej Centre of Excellence in Mumbai on non-residential basis.

- The company related **Project Work** requires approximately 800 hours of work.

Programme Modules

A set of approximately 24 modules are offered under the headings of Business, Operations / Technology. Participants may select modules appropriate to their developmental needs, and with an aim to broaden knowledge base about all areas.

Attendance is expected at decent intervals and a typical class size is upto 35. Attendance on any one module running is booked on the basis of 'first come first served', irrespective of company or function, so that the attendees will represent a mix of industrial sector and disciplines. The programme has been designed with significant flexibility to allow attendance to fit with the participants' works environment. Industrial involvement in developing and delivering the syllabus is extensive and of key importance. Company specialists play a major role in the design of module, and again the provision of 'company session' during the module running. By the same token, company managers assist in and approve the definition of individual participant's module selection. These provisions ensure that all participants' programme are personally and industrially relevant.

Modules on Offer

Business	Operations / Technology
Business Strategy & Strategic Management Financial Analysis & Control Systems Financial Strategy Global E-Business Organisations, People and Performance International Joint Ventures Management of Change Strategic Marketing	Applied Statistical Methods Automation & Robotics Product Design & Development Management e-CRM Enterprise Information Systems Industrial Engineering Innovation Logistics and Operations Management Manufacturing Process Technology Operations Strategy for Industry Process Improvement Using Six Sigma Project Planning Management & Control Quality Management and Techniques Simulation of Operations Supply Chain Management Technology Management

The Regulations state that candidates / participants must attend 9 modules. Out of 9, a minimum of 2 should be from "Business" and a minimum of 5 should be chosen from "Operations / Technology"

A selection of 5 - 6 modules, per year, is offered in India

Target participant

The programme is designed for professional and technical staff at middle management level; engineers, technicians, manufacturing supervisors and managers. **Participants have to be sponsored by member companies of CII.**

Those in non-manufacturing function in manufacturing companies like HR, Finance, Marketing, etc., would also find it relevant and useful.

Sponsoring organizations may wish to apply some of the following guidelines in the selection of their candidates to the programme:

- Proven maturity and intellectual ability to comprehend - and the capability to absorb - advanced level instruction and then to apply within their work environment
- Desire to explore interrelationships between different aspects of the business environment beyond their own functional activity
- A sincere commitment to the intensive study and active discussion that can contribute significantly to the programme
- Fluency in the English language as the programme is presented in English only
- Executives with management position or staff aspiring to this position
- Sponsored candidates must have a minimum Bachelor's degree in 1st / 2nd Class with atleast 2, preferably 5 - 10 years of industrial experience
- Those holding a Diploma in Engineering (in first class) and having 10 years work experience are also considered.

Benefits for the Sponsoring Company and the Participant

The ACE is an intensive and personally demanding programme requiring significant commitment from the sponsoring company and the participant. However, the rewards are high for both:

- Immediate application of concept and tools
- Rapid benefits through the in company project
- Improved on the job performance during the programme
- The development of the company's intellectual capital through the project work and module related assignments
- Acquisition of transferable knowledge and skills
- Continuing professional development
- Career enhancement

The successful engineering and manufacturing business must be customer-focused, quality oriented and cost effective. Management structures need to have clear authority and accountability. This requires that you, your managers and technical professionals are able to lead the complex process and personal performance. Your decisions and theirs must be based on a clear analysis of business needs and risks.

The WMG programme can assist all levels of management to focus on company-wide business processes, and understand the latest technologies and best practices. Critically, it provides the tools to continuously develop and implement new solutions.

Faculty

The faculty coordinating these modules held in India is always from WMG, University of Warwick. The faculty carries with them the rich experience of varied environments. The WMG faculty are supported by local experts who share their experiences with practicing managers who attend the programme.

The Degree

Leading to a **MSc in Engineering Business Management** awarded by the University of Warwick, UK, (No accreditation by All India Council of Technical Education (AICTE) and National Accrediation Board) the requirement for each participant is to complete 9 modules and an in-company project designed in consultation with the participants' organization, in a period of 24 - 36 months. No formal closed book examinations are conducted for this degree; assessment is continuous and based on assignments relating to each module attended and the in-company project.

Short course options consisting of lesser modules and other requirements are also available. These can lead to sub qualifications of Postgraduate Diploma, Postgraduate Certificate and Post Graduate Award. Credits from these can lead to the full MSc award.

Admissions are open throughout the year.

The admission and participation is governed by the rules and regulations of the WMG, University of Warwick, UK

The Special Option

In addition to MSc course, organizations may like to take advantage of the special opportunities provided by this modular choice or they may request a special dedicated version of the module specific to the needs of their managers.

ACE Programme in India

In 1995, Confederation of Indian Industry (CII) got into a partnership under which this MSc Programme (ACE) is held in India. Currently there are over 70 sponsored executives who are recurrently enrolled for this programme. The successful executives are now occupying senior and strategic positions in companies. In addition, approximately 800 executives from over 160 companies have participated in modules of their choice.

Companies which have participated at the MSc programme held in India -

Ashok Leyland Limited	Audco India Ltd
Bharat Forge Group of Companies	BOC India Ltd
CESC Limited	Crompton Greaves Ltd
Cummins India Ltd	DCM Steel Processors Pvt Ltd
Electrotherm India Pvt Ltd	Exide Industries Limited
Forbes Marshall	Godrej & Boyce Mfg Co Ltd
Hindustan Motors Ltd	Hindustan Unilever Ltd
India Pistons Ltd	Jacobs Engineering India Pvt Ltd
Kulkarni Power Tools Pvt Ltd	L & T Case Equipment Ltd
Larsen & Toubro Ltd - E&C	Larsen & Toubro Ltd - EAOC
Larsen & Toubro Ltd - IPM	Larsen & Toubro Ltd - MIPD
Laxmi Oil Pumps & Systems Ltd	Lucas - TVS Limited
M D Steels Pvt Ltd	NICCO Corporation Ltd
NRB Bearings Ltd	Rolls Royce (I) Ltd
Samtel Color Limited	Sanmar Group of Companies
Siemens Information Systems Ltd	Sundaram - Clayton Limited
Tata Motors Limited	Tata Steel Ltd
TVS Electronics Limited	TVS Motor Co Ltd
WABCO - TVS (India) Ltd	

Since the year 2006, this programme is being conducted on incompany basis for managers of Bharat Forge group of companies, in Pune

Participation Fees

For the MSc in Engineering Business Management held in India by CII, the full course fee (for 24 – 36 months) per participant is Rs. 4.50 lakhs (Rupees Four Lakh Fifty Thousand) (plus service tax as applicable) on non-residential basis. Fees is payable on acceptance of the sponsored candidate(s). Payment in installments will be considered on request.

Individual module fee currently is Rs.45,000.00 (Rupees Forty Thousand) plus Service Tax as applicable

Advance payment of fees is to be drawn in favour of ‘Confederation of Indian Industry – For CII Naoroji Godrej Centre of Excellence’ payable at Mumbai.

Registration

S D Puranik
Executive Director
CII Naoroji Godrej Centre of Excellence
Godrej Station-side Colony, Opp Railway Station, Vikhroli (East) Mumbai - 400 079
Tel: 022 - 2574 5146 / 2574 5148
Fax: 022 - 2574 3361
Email : s.d.puranik@cii.in / ciicoe@vsnl.net / ciicoe@mtnl.net.in

Venue of the Modules

CII Naoroji Godrej Centre of Excellence, Godrej Station-side Colony, Opp Railway Station, Vikhroli (East), Mumbai - 400 079

What the past and current participants have to say about the MSc programme

The biggest advantage that “MSc in Engineering Business Management” programme known as ACE programme in India offered to me individually was the pace at which it was delivered. I was able to run my plant, plan my schedule and attend the classes too with ample ease. The programme addresses the lacuna that most of the masters’ programmes have - being over ambitious in their expectations on time. ACE however was refreshing in its approach - a perfect blend of operations, management and technology modules, excellent hands on faculty, balanced emphasis on class participation, assignments, self study and overall assimilation of knowledge. The modules, assignments and the research work compels you to think differently, have originality in thought process and in turn challenge you to raise the bar of your capability. The programme is very wholesome in addressing the needs of shop floor leaders aiming to become business leaders. Apart for the knowledge that I gained, for me it has been the fulfillment of a long standing wish of wanting to value add a masters’ programme to my portfolio -
Amar Kaul; Senior Vice President (Machining Business), Bharat Forge Limited.

MSc in Engineering Business Management is an ideal operations and management learning process for the young and experienced practicing managers in India. The unmatched quality of high profile tutors from WMG and able coordination of CII Naoroji Godrej Centre of Excellence has made this course unique in our country. I find the concepts inculcated in the modules I chose to attend, particularly relevant to work situations prevailing.

The best parts of this programme are

- *It is flexible and one can choose his areas of study from a large pool of available subjects*
- *The project work gives an excellent opportunity to nurse the concepts one practices and preaches.*

Mr Ananda Majumdar, Alstom Limited

The MSc in Engineering Business Management jointly conducted by CII and Warwick University, is a real knowledge enhancement tool. It is a very good mix of operational tools / techniques with managing skills essential for a business to be successful. The flexibility offered in the course to choose modules relevant to one’s area of interest and utility, adds to the value of the programme equally for the sponsorer too.

The course has benefited me in widening my perspective from a hard core technocrat to that of a business manager -
Mr Prashant Chouthkanthiwar, General Manager (Design), Godrej & Boyce Mfg Co Ltd

I recently completed attending WMG /CII - MSc in Engineering Business Management. I would recommend this course to practicing Managers who have experience in the shop floor and are looking to gain a broader perspective in the various facets of running a Business.

The course is spread over three years and gives you enough time to meet the demands at work and achieve your objective. In these days of crash courses, this is a welcome relief and ensures that you meet your objective of learning with purpose. The structure is well designed and gives ample opportunities to the individual to practice hands on at work, what is taught in the classrooms.

The tutors are all people with wealth of experience in their chosen fields and most of them have had successful careers in many organizations prior to teaching at Warwick. This helped a lot as they understood the needs of the business and all the dissertation requirements are meaningful work rather than just literature review. Access to some of the best e- learning is made possible through Warwick University’s “My Athens” resources.

The modules covered on Business, Operations and Technology are well thought out and meets the needs of the business. Case Studies presented by experts from Indian manufacturing sector provided a lot of insights into the

*current working environment. I personally enjoyed doing this course and have come out of it a better person professionally and personally - **Mr R Ramesh Babu - General Manager (Operations), Xomox Sanmar Limited***

I have done the MSc in Engineering Business Management in the first batch offered in India by CII and Warwick.

I found this course very unique in many respects.

First, the focus is on business management for the managers in the engineering functions in the manufacturing sector. There are twelve modules to be chosen from three streams such as Operations, Technology and Management, which gives good flavour of all the subjects relevant to the managers. The relevance of the modules was found very good.

Second, the course offers continuing education for practicing managers who cannot be released full time. The curriculum and methodology adopted by this programme ensures that the students are offered distance education without diluting the academic requirements of a full time on-campus education.

This is ensured by the fact that the faculty are from UK who teach the same module in the university. This is customised to the local environment by bringing case studies from local industries. The way the courses are offered with classroom exercises and post module assignment, it creates very good understanding and application to given problem on hand.

Third, the dissertation (project work) carries a credit equivalent to twelve modules requires considerable academic inputs and practical work with guidance of academic guide and industrial guide.

All this put together the course added considerable value to me as a person and as a professional in my organisation.

I was project manager for new product development when I joined this course in the year 1998. I have completed this course in the year 2001. I have grown to a position of Senior Vice President- Human Resources and TQM. The course has given me the perspective and skills to prepare myself for future roles.

*I strongly recommend this course to practicing managers in the manufacturing sector in the emerging markets - **Mr V Kovaichelvan, Senior Vice President - Human Resources and TQM, TVS Motor Company Ltd***

*The success of the ACE Programme is in its structure. Profound Learning comes from implementing ideas. This programme gives systematically the information relevant in today's competitive business environment. By way of assignments this information is converted to knowledge. Self learning increases the drive, desire and commitment for implementation. This helps organizations that sponsor candidates. I have benefited immensely as participant and also my division by way of implementation of various ideas from diverse modules covering various business aspects - **Mr Nilesh Chauhan, Sr. Manager, Planning, Tooling Division, Godrej & Boyce Mfg Co Limited***