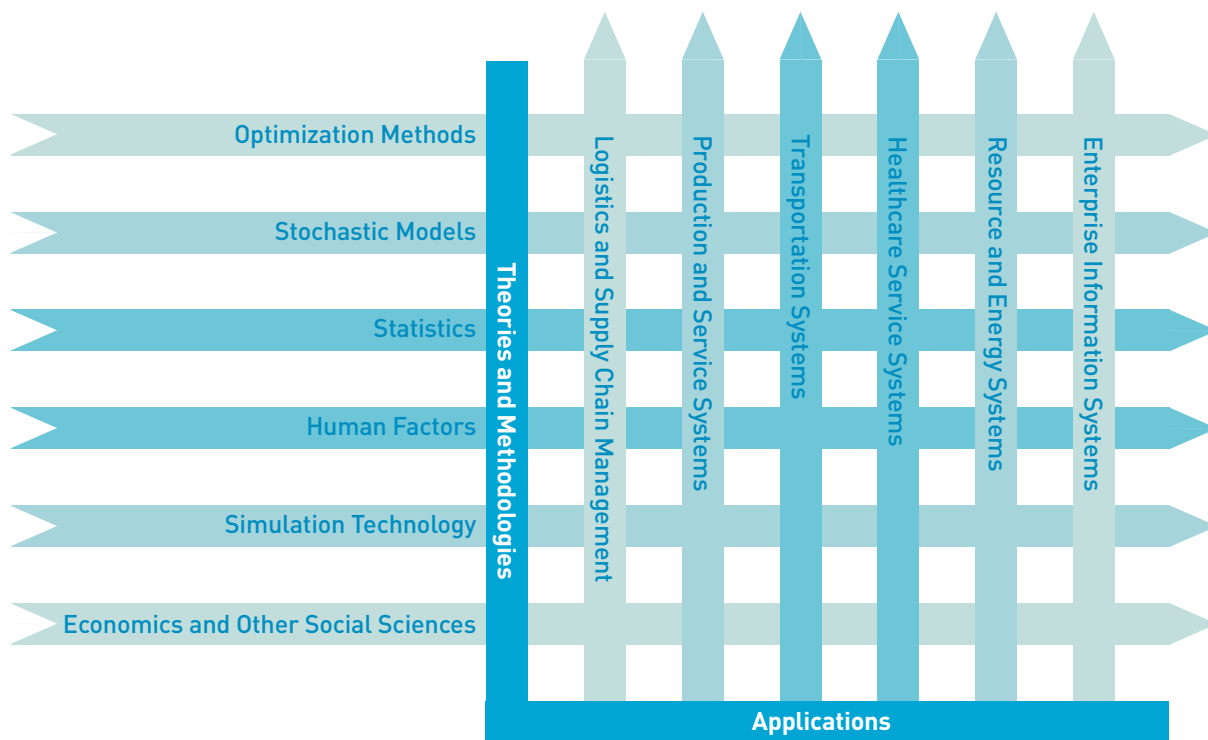# Department of Industrial Engineering, Tsinghua University

Industrial Engineering has evolved as a major engineering and management discipline dealing with the development, improvement, and implementation of complex processes and systems by using the principles and methods of mathematical, physical, and social sciences. The effective utilization of industrial engineering has greatly contributed to our increased standard of living during the last century through increased productivity, quality of work and services, and improvements in working environments.

Industrial Engineering at Tsinghua University was initiated in the 1990s. The graduate program in industrial engineering was launched in 1993 and later the undergraduate program in 1997. The Department of Industrial Engineering was established in 2001. Dr. Gavriel Salvendy, Professor of Industrial Engineering at Purdue University and Member of the National Academy of Engineering (U.S.), was appointed as the chaired professor and founding department head. The department has since become the leading industrial engineering program in China, with an outstanding group of more than 40 faculty members plus about 20 postdocs, 30 research associates, and more than 200 Ph.D. students.

The emphasis of the department is to produce high quality education and high impact research which contributes to improved quality of life and standard of living in China and the world. There are three research institutes: System Operation and Digital Management, Operations Research and Data Science, and Human Factors and Human-System Interaction. Major research areas include operations research, applied statistics, human factors and ergonomics, production systems engineering, supply chain management and logistics, enterprise integration and information system, service operations management, quality management and system support, and healthcare service management. Several centers have been established with the support from the government and industry for solving practical problems faced by various industries, such as Institute of Quality and Reliability, Center for Smart Logistics and Supply Chain Systems, Center for Human Factors in Complex Systems, Center for Complex Systems Engineering, Institute of Industrial Culture, Center for Data-Centric Management, Center for Intelligent Operations and Maintenance, etc.

TSINGHUA

SYSTEM OPERATION
&DIGITAL MANAGEMENT

OPERATIONS RESEARCH
&DATA SCIENCE

HUMAN FACTORS
&HUMAN-SYSTEM
INTERACTION

The goal of the department is to develop global reputation as a world-class research and education program. The department has adopted a new paradigm of engineering education with an emphasis on creativity and practical training through innovative teaching. The department has initiated several joint international programs since 2001, including the Tsinghua-Aachen joint Master of Science program and Tsinghua-Polimi Tech exchange program, with over 60 international students joining us every year. The department hosts research workshops annually, and has built up long-term international collaboration with well-known universities and companies.

Major (Discipline or field)		Degree
Undergraduate	· Industrial Engineering	Bachelor of Science
	· Industrial Engineering Minor · Statistics Minor	Minor Certificate
Graduate	· Management Science and Engineering · Global Manufacturing Program 　(full time program in English, international students only) · Tsinghua-Aachen Joint Master's Program 　(full time program in English, international students only) · Tsinghua-Politecnico di Milano Joint Master's Program 　(full time program in English, international students only)	Master of Science
	· International Master of Engineering Management (iMEM) Program 　(full time program in English, international students only) · Master of Engineering Management (MEM) Program (Part time)	Master of Engineering Management (MEM)
PhD.	· Management Science and Engineering	Ph.D.
	· Statistics	
	· Engineering Ph.D. Program (Part time)	

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