



TEXAS A&M UNIVERSITY
Engineering

MASTER OF **ENGINEERING** TECHNICAL MANAGEMENT

DESIGNED FOR WORKING PROFESSIONALS, TAUGHT BY INDUSTRY LEADERS

Online Program | Part-Time | 21 Months to Complete



TEXAS A&M UNIVERSITY

ESTABLISHED 1876

74,000+
current students

520,000+
alumni

4,800+ Faculty & Researchers
135+ Undergraduate Programs
270+ Graduate Programs

COLLEGE OF ENGINEERING

*Consistently ranked among the nation's
top public engineering programs*

#1 in Texas - Best Online Master's in
Engineering Programs
2022 U.S. News & World Report

#6 in the Nation - Public
Graduate Program
2023 U.S. News & World Report

710	2.1 Million	78	247	30	100%
					
FACULTY	SQUARE FEET OF LEARNING SPACE	PROFESSORS OF PRACTICE	PROFESSIONAL SOCIETY FELLOWS	NATIONAL AND INTERNATIONAL ACADEMY MEMBERS	OF ENGINEERING CLASSES LESS THAN 100 STUDENTS



Dr. Ben Zoghi, founding director of the Master of Engineering in Technical Management program at Texas A&M, has developed a custom master's program specifically for engineers who want to move up in business.

*"The fastest, surest way to improve our outcomes
is to improve ourselves."*

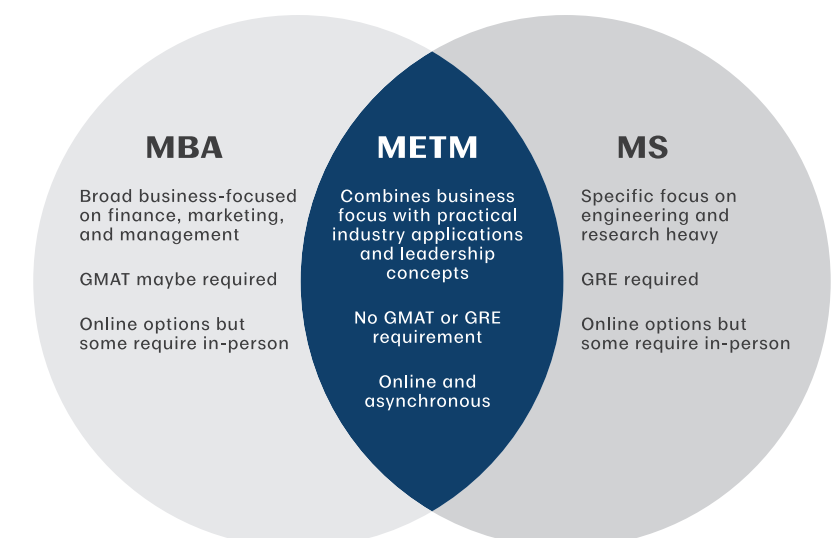
Dr. Zoghi

The Master of Engineering Technical Management (METM) graduate degree is online, part-time, asynchronous, and is designed for early to mid-career working professionals. The program provides engineering and technology professionals with the business background needed to excel, such as leadership, project management, data-driven decision-making, and technology commercialization.

This rigorous program is industry-oriented, and relevant to electronics, manufacturing, automation, energy, process and related industrial channels. The program targets high-potential professionals and creates a foundation for the company's future project leaders.

METM differs from a traditional Master of Science in Engineering by concentrating on current industry best practices rather than research, and differs from a traditional Master of Business Administration (MBA) by emphasizing the technical and engineering context of business topics. METM's curriculum, carefully crafted in consultation with industry leaders, provides a unique blend of industry-critical skills in managing people, projects and profitability. The curriculum is taught by world-class faculty with 80% coming from industry.

With the challenges facing us on a global level, there is a new need for technology-driven companies to develop their high-potential employees to integrate technical and business skills to solve these difficult problems. Currently, most graduate programs focus on technical skills or business acumen, but not both. METM fills this gap by meeting the demand for such professionals and is distinctive among engineering programs in the intersection of business, management, engineering and leadership.



HOW IS METM UNIQUE?



Emphasis on industry best practices for leadership using Emotional Intelligence and coaches



Texas A&M Campus residency experience bonds students for better online teamwork



Faculty averages over 30 years of industry experience using real-world coursework



Individually customized capstone project

METM BENEFITS

Advantages for participants

- Earn your degree with minimal disruption to your job and family.
- Expand your professional network.
- Immediately apply what you learn to your job.
- Be able to research current issues facing your company.
- Become a part of the Aggie network and earn your Aggie ring.

By the end of the program, students will be able to

- Develop a technical program for an engineering project.
- Lead and manage a diverse team of technical professionals.
- Create and put in place corporate strategic technology plans.
- Communicate with non-technical customers and colleagues.
- Have a framework for data-driven decision-making.
- Manage resources and assets.



Advantages for employers

- Transform engineer talent into technical leaders.
- Return on investment through student's company-focused capstone project.
- Minimal impact to your workplace since online, asynchronous program allows employees to work at the company.
- Students bring the skills they learn to their jobs right away.
- Improve employee retention.

PROGRAM STRUCTURE

At the beginning of each academic year, students are required to attend a one week residency at Texas A&M University. After residency week, students will return home where they will complete the remaining coursework online throughout the Fall and Spring semesters. In the final semester, students are invited to participate in graduation ceremonies in College Station, Texas.

YEAR 1

RESIDENCY WEEK

Residency week is the second week in August at Texas A&M University campus in College Station, Texas. Residency week offers students an immersive learning environment to begin each year and allows students to connect face-to-face with their fellow classmates and faculty. Students will also have the opportunity to hear from guest speakers such as industry executives, engage in lively debates, and develop new perspectives on their leadership style.



TCMT 610 Engineering Personal Leadership

Addresses Emotional Intelligence (EQ) and developing cognitive, emotional, and behavioral capabilities so students will become effective leaders. The course will explore the area of emotional intelligence, identify personal EQ competencies and areas for improvement, and build on these competencies and skills.

TCMT 619 Personal Leadership Coaching*

A unique opportunity to engage in experiential learning, work one-on-one with a professional coach and develop a comprehensive leadership development plan based on the findings and insights from your EQ-i 2.0 assessment report. In a series of interactive and reflective one-on-one sessions, you will deepen your understanding of your emotional competencies and identify areas of improvement.

* continued throughout the fall semester

FALL SEMESTER

TCMT 612 Technical Management Decision-Making

Instills a general intuition for data-driven decision-making and equips leaders with the tools and techniques necessary to analyze large databases and use effective data visualization to gauge key metrics.

TCMT 613 Technical Project Management

Provides professionals with advanced tools and techniques to strategically execute projects, programs and portfolios. The course provides advanced skills and practical instruction on the processes, organizational structure and tools that assure project work yields desired business results.

SPRING SEMESTER

TCMT 623 Financial Decision-Making

Covers financial engineering for technical managers, accounting and financial concepts to provide every manager with a critical perspective on business performance and a foundation for good decision-making.

TCMT 624 Managing Technical Teams

Examines the behavioral sciences relevant to the effective management of people and effective design of human resource systems, structures and policies. Topics include leadership, change management, motivation and pay systems, team dynamics, staffing, decision-making, organizational communications, employee participation, performance appraisal, conflict management, negotiation, work design, organizational design, and organizational culture.

RESIDENCY WEEK

TCMT 636 Persuasive Communications for Technical Managers

The course emphasizes the importance of effective communication with a focus on executive interactions, working with senior and mid-level managers, and communicating with team members or direct report employees. The course will cover tools, and techniques and give students an opportunity to practice these approaches and receive real-time feedback.

TCMT 630 Organizational Leadership for Senior Technical Leaders

This course focuses on the art of becoming a senior technical leader by exploring key components and skills necessary to make the transition from industry technical management to C-level management; a combination of lectures, scenarios, reflections and practical application of learning beyond the classroom. The objective of this class is to prepare you to move from technical management to executive C-level management. We will establish a foundation of learning that will guide you for many years in your career.

FALL SEMESTER

TCMT 631 Capstone Project I

Students benefit from a one-on-one mentoring relationship with a top-level technology executive, matched to their professional interests and goals, over the course of the program. Students gain firsthand knowledge of the practices, experiences, and values of a successful technology management leader. Mentors are matched with students starting in the second year, at the conception of the master's project. Providing true executive guidance and advice, mentors work with their mentees through the final defense of the master's project and graduation.

TCMT 634 Value Chain Management

This practice-oriented engineering and supply chain management course investigates a robust framework for better managing supply chains in today's rapidly changing markets. The course covers the next big trend in supply chain strategy, key skills required to be successful, how to effectively structure a company's supply chain strategy, guidelines for making strategic sourcing and make-buy decisions, and how to integrate e-business thinking into supply chain strategy and management.

SPRING SEMESTER

TCMT 641 Capstone Project II

The master's project demonstrates students' ability to apply their coursework toward a specific technology solution based on the area of focus chosen by the student — usually in the form of a product or service — to a complex, real-world business challenge, objective, or scenario.

TCMT 643 Contract & Risk Management

An introduction to the principles of contract formation. This course highlights the distinctive characteristics of contracting as well as the team concept for effective contracting and the role of the program manager as a key team member. Subcontract management, competitive negotiation techniques, contract financing, and cost reimbursement are also discussed.

CAPSTONE PRESENTATION AND GRADUATION

Industry Capstone Project

The culmination of the METM program takes place at the end of the fourth and final semester. Students will be required to deliver their final project presentations virtually to their faculty mentor and company representative. Students will be offered the opportunity to participate in Texas A&M University's graduation program alongside campus students.

Student will select, define, elucidate, conduct and conclude a research project for a business entity of their choice.

- The project should have a significant positive impact on the firm's business or research programs, initiatives, persistent problem areas or operational activities.
- Select a research topic, develop a problem statement and single-page strategy, and generate a proposal.
- Present a mid-term update, compile a final written report, and provide an virtual presentation for the METM faculty; include performance evidence of the proposed results.



FACULTY



Ben Zoghi

*Master of Engineering Technical Management Director
Victor H. Thompson Professor*

Dr. Ben Zoghi holds the Victor H. Thompson Endowed Chair Professorship in the Electronic Systems Engineering program and is director of the RFID/ Sensor Laboratory and the Master of Engineering Technical Management (METM) online program at Texas A&M University. He also served as the Director of the Thomas and Joan Read Center and associate department head for research at the Department of Engineering Technology and Industrial Distribution at Texas A&M.



Chahriar Assad

Industry Professor

Dr. Chahriar Assad joined The Boeing Company (then Hughes) in the early 1990s. He is now a chief scientist in charge of all space qualifications for the Space and Launch division. Dr. Assad was a Hughes MBA Executive Fellow to MIT where he received his masters from Sloan. He was also a Welch Foundation Pre-doctoral Scholar at Texas A&M University where he earned a Ph.D. in Atomic Physics. He is an adjunct Professor in the College of Business and Public Administration at CSUSB, and also a lecturer in the Departments of Eng. and Tech. Management at UCLA Extension.



Noushin Bayat

Industry Professor

Dr. Noushin Bayat works as an executive coach and human capital thought leader with 15+ years of experience leading and managing complex change initiatives. Bayat is the founder of Engaging Wisdom, Inc. and serves as the director of digital transformation for Executive Leadership Consulting. Bayat holds a Doctorate in Organizational Leadership, a Master's in Spiritual Psychology, a Master of Public Health and a Bachelor of Science in Computer Science and Communication.



Michael Handy

Industry Professor

Michael Handy is the director of global manufacturing engineering at National Instruments (NI), a leader in the development of high-performance automated test and measurement systems. He manages a multi-geographic team responsible for the development and production of systems used by engineers and scientists at the cutting edge of research, development, and manufacturing. He leads technical product development programs leveraging a multitude of disciplines including analog and digital hardware, mechanical, and software engineering as well as coordinates product launches with the marketing and manufacturing organizations in the Americas, Europe and Asia.



Jason Hannam

Industry Professor

Jason Hannam is the vice president of product development at SafeKick Americas and is responsible for the development of product lines, establishing commercial partnerships and ensuring project success. Hannam's career history includes serving as the Director of Product Development for Impact Drilling Solutions, System Integrator for Omnia Technology, Design Engineer for Downhole Technologies and Design and Validation Engineer for Triconex.



Ryan Holt

Industry Professor

Ryan has 16 years' worth of experience in Design Engineering, Manufacturing Engineering, and Operations within the Oil and Gas and Electronic Manufacturing industries. After serving in the United States Marine Corps as an infantryman and amphibious assault vehicle gunner and commander, Ryan enrolled in Lamar University in Beaumont, and was conferred a BS in Industrial Engineering Technology. Following the completion of his undergrad, he was accepted into the inaugural cohort of the METM program and graduated as a proud member of the Fighting Texas Aggie Class of 2020. Ryan holds a third degree in Engineering Design Graphics.



John Hughes

Industry Professor

John Hughes has over 30 years of experience in corporate training with the last 20 focused on measurement and development of emotional intelligence skills. Hughes is the president of E.I. Assessments where he designs and delivers leadership programs focused on emotional intelligence.

Hughes' career history includes serving as the senior internal consultant & director of training & development for The New York Times, training specialist & IAR for IBM and director of residence and adjunct professor of psychology at Iona College. Hughes holds a Master of Science in Counseling and a Bachelor of Arts in Psychology



Jorge Leon

Allen Bradley Professor

Dr. Jorge Leon holds a Ph.D. in industrial engineering from Lehigh University. He is the Department of Engineering Technology and Industrial Distribution associate department head for graduate studies and directs the Strategic Operations Optimization and Planning Group at Texas A&M University. Previously he was the director of the manufacturing and mechanical engineering technology program and was plant manager for an appliance manufacturing company. His teaching and research interests are in the areas of operations optimization with specific consideration to solution robustness, partial information-sharing, rescheduling, and multiple optimization criteria.



Christopher Maguire

Industry Professor

Christopher Maguire currently serves as the Deputy Chief Engineer within the F-16 Chief Engineer's Office at Lockheed Martin Aeronautics in Fort Worth, Texas. He has been with Lockheed Martin for nearly 9 years as an aeronautical engineer and has experience and expertise in project engineering, systems engineering, and aerodynamics. He is the current President of the Association of Airworthiness Professionals (AAP). He earned his Bachelor of Science in Aerospace Engineering in 2011 and Master of Engineering Technical Management in 2020 at Texas A&M University.



Ahmed Mahmoud

Industry Professor

Ahmed Mahmoud is the CIO, Global Manufacturing, Global Purchasing and Supply Chain (GPSC) at General Motors and serves as GM's Executive Champion for Texas A&M University. He has more than 25 years leading teams in enterprise level information technology (IT) and is a recognized IT industry leader. He was named to Computerworld's "Premier 100 IT leaders" in 2009. He served as Senior VP of Hewlett-Packard's hp.com, e-commerce and marketing organizations, Senior VP and CIO of AMD, VP of IT in Supply Chain at Dell Inc., and IT leadership positions at Eastman Kodak Company.



Marc Marini

Industry Professor

Marc Marini is the Vice President of Research and Development, RF Products at NI (formerly National Instruments). He has worked on the leading edge of engineering innovation for more than 30 years. He has served in multiple capacities within the industry, from research and development laboratories to the front lines of sales leadership. Marini currently manages product area supporting data acquisition, smart machine control, smart grid, test cell, and HIL applications. Prior to joining NI, Marini held positions with other prominent companies, including DSC Communications, GenRad, and Motorola. He earned his Bachelor of Science in electrical engineering from Texas A&M University in 1987.



Rustom Mody

Industry Professor

Rustom Mody received a Master of Science degree in Mechanical Engineering from the University of Oklahoma and a Master of Business Administration degree in Finance and Marketing from the University of Houston. He is a Registered Professional Engineer in the state of Texas and holds 17 patents. Mody is currently the Vice President of Technical Excellence at Baker Hughes, a GE Company. His dynamic leadership combined with his expertise in both engineering and business continue to bring him a successful, accomplished career.



Akhila Prabhu

Industry Professor

Akhila Prabhu is the Associate VP at Mphasis, an engineering and IT services partner to enterprises across industries. She manages multi-geographic teams to provide engineering services & solutions in cutting-edge technologies. Akhila holds a Master of Engineering Technical Management from Texas A&M University and a Bachelor of Engineering in Electronics and Communications from a University in India. Akhila was the recipient of several corporate awards, including the Exemplary Leader of the Year Award in 2021 and the CEO Award – Culture Champion in 2018.



Denise Preusser

Industry Professor

Dr. Denise Preusser is the founder and president of Agler Consulting, providing executive coaching, focus groups and customized training for businesses. She is also an adjunct professor for the MBA and EMBA programs at Walsh University. Preusser's career history includes serving as an adjunct professor at John Carroll University and a guidance counselor at two school systems. Preusser holds a Ph.D. in Organizational Systems and a Master of Science in Counseling and Human Development.



Nelymar Reyes

Industry Professor

Dr. Nelymar Reyes is a psychologist with more than 10 years of experience working in Mental Health and Education, serving in both the private and public sectors in Puerto Rico. Reyes holds a Ph.D. in Psychology, specialized in Teaching, Consulting, and Research, a Master of Science in Counseling Psychology, and a Bachelor's in Administration in both Management and Marketing. She also is certified as an Emotional Intelligence and Diversity trainer (EIDI), Nonviolent Crisis Intervention trainer (CPI), Executive Coach (London Image Institute), Multi-Health Systems in the Emotional Quotient Inventory (EQ-i 2.0 and EQ 360) assessments.



F. Michael Speed, Jr.

Industry Professor

Mike Speed received a Bachelor of Science degree in Industrial Engineering from Texas A&M University and Master of Science and Ph.D. degrees in Industrial Engineering from the University of Alabama in Huntsville. Mike received his Juris Doctorate degree from The Ohio State University College of Law. He has been admitted to practice law in Ohio, the Federal Circuit Court of Appeals, the Sixth Circuit Court of Appeals, the United States District Court for the Southern District of Ohio and Northern District of Ohio. He is also admitted to practice before the United States Patent and Trademark Office.



Lisa Spence

Industry Professor

Lisa Spence received a BS in Chemical Engineering from Arizona State University, and began work in the nuclear and then petrochemical industries, where she managed projects upgrading operating units from analog to digital instrumentation and control. She transitioned to NASA and began a 32 year career which included assignments as a Space Shuttle instructor, training systems and curriculum development lead for the International Space Station, science program training coordinator for the Shuttle-Mir program in Star City, Russia, training liaison to multiple international partner agencies, integration engineer for EVA training and development at the Neutral Buoyancy lab, and systems and operations integration engineer in the Constellation Program.



Stephen Thompson

Industry Professor

Dr. Stephen Thompson holds a Ph.D. in Chemistry from the University of Dundee, Scotland. Thompson has 30 years' industry experience, with a focus on technology, processes, operational methods and quality associated with electronics, procurement, and distribution. He is a veteran industry professional with expertise in semiconductor processes, equipment fabrication, operations, supplier management, and quality. Thompson has a proven record of driving world-class performance for global operations, quality and products through immediate improvement actions, defect prevention, model-based decision-making and organizational commitment to performance management systems.



Scott Tingey

Industry Professor

Scott Tingey is an operations executive with a broad-based expertise in laboratory operations, human resources and project management. Tingey is the chief operating officer for facilities and operations at Los Alamos National Laboratory where he leads operational aspects, budget and risk management. Previously he has served in various executive positions at Pacific Northwest National Laboratory and the National Biodefense Analysis and Countermeasure Center. Tingey has worked to bring operational discipline, human performance and outcome-focused strategies together in his 30 years serving the Department of Energy and the Department of Homeland Security.



Xiaomin Yang

Industry Professor

Dr. Xiaomin Yang, technology portfolio manager of Saudi Aramco, oversees portfolio governance and decision-making processes to maximize the value of the company's technology investment, minimize risk, and align R&D priorities with business needs. At METM, Dr. Yang focuses on helping organizations improve the quality of their business decisions by educating new generation talents to implement cohesive governance, structure and tools. Yang received a Ph.D. in chemical engineering from Purdue University and a Master of Business Administration from the University of California at Berkeley.

ADMISSION REQUIREMENTS

- Minimum four years of technical work experience
- Bachelor’s degree from an accredited university. Preference will be given to STEM undergraduates.
- No GRE or GMAT scores are required

COST

\$54,000 total

Tuition & Fees Include:

- Hotel accommodations, transportation and meals during residency weeks
- All textbooks, case studies, and educational materials
- Graduation hotel accommodations, cap and gown

DEADLINES

Priority Admission - December 1st

Applications received before December 1st will receive priority by the admissions committee. Applicants will be notified of the admission decision by January 1st. Application must be submitted in its entirety to be reviewed.

Rolling Admission*

Any seats remaining after the priority admission deadline will be filled during the rolling admission period. Applications will be reviewed as they are submitted on a first-come, first-reviewed basis.

*April 1st is the final deadline for international students.

STUDENT TESTIMONIALS



“I feel like the METM program was made just for me. It had all my wishes in a degree and ultimately led me to pursuing a Ph.D. I had started an MBA before. I was sitting in an Economics class and thought, I’ll never use this. I need to find a better path. I felt the METM program was designed for me. I was taking things I’m learning in class and deploying them at work the next day.”

Lance Decker – Class of ’20
Texas A&M University, Ph.D. Student for Interdisciplinary Engineering



“The experts that taught us gave us firsthand wisdom in the topics we were learning. I didn’t learn to just calculate inventory in a supply chain. I learned why, when, how, and what to my entire supply chain process and how to make my company better for it. My managers are taking training over things I have already learned and currently use from my METM experience”

Crystal Thornton – Class of ’20
Caterpillar, Lean Deployment Manager



“The METM program was instrumental in my securing a new job in March 2021 with Acuren. It has also been vital in positioning myself as a key senior leader in the organization and has likely helped me retain my job through challenging layoffs/reduction in force efforts. Faculty and professors are extremely well-versed in various fields and industries. The asynchronous format bodes well for more candidates to work it into their professional and personal schedules.”

Eric Worley – Class of ’22
Acuren, General Manager Midstream & Pipeline Integrity



“The most valuable part of METM is understanding myself. I was so used to being the type of leader that gave directives. Taking the emotional intelligence test, we were able to identify areas for me to improve. The program has had a positive impact on my career. It has helped me look at my team from a completely different perspective—listening more to my team and boost my confidence and expand to other teams in a global-type environment.”

Claudia Hernandez – Class of ’23
Chevron, IT Release Train Engineer



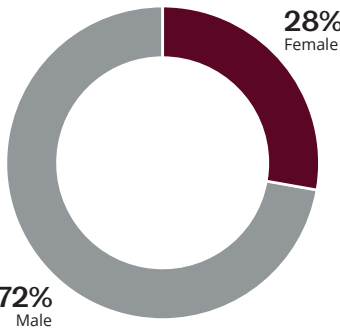
“The courses touched on all the possible business pieces that one might need and showed you how to use them effectively. I got unexpectedly pulled into a meeting by my manager and was able to work with the business unit managers and supply chain and contribute on an RFP in a unique way, which was a fantastic experience. I now get frequent questions from both groups. This program will help you gain knowledge in all aspects of the engineering process from conception of ideas to the human element.”

Paul Carmen – Class of ’20
ConocoPhillips, Completion Fluid Specialist

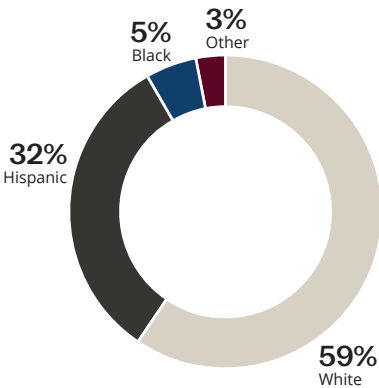
STUDENT DEMOGRAPHICS

Age Range **24-59** | Average Age **38** | **111** Students | **23%** Veterans

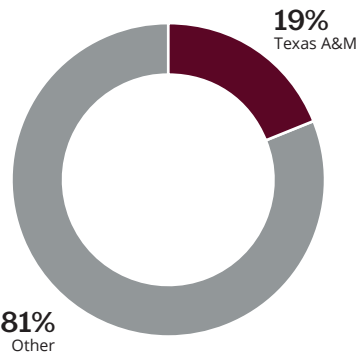
GENDER



ETHNICITY



ALMA MATER

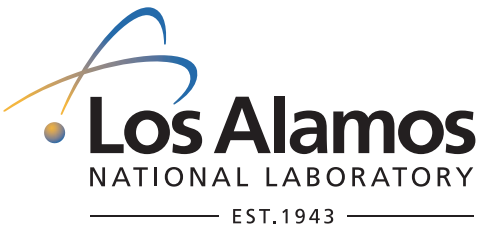


STUDENT EMPLOYERS

3M
Alliance Geotechnical Group
American Airlines
Baker Hughes
Balfour Beatty
Boeing Defense & Space
Boston Scientific
Calvert Cliffs Nuclear Power Plant
Canrig Drilling Technology
Carrier Global Corporation
Chevron
Chevron Phillips Chemical
Closure Systems International
Directorate of Public Works
DOF Subsea
Ecoat.us
ESNA Texas / Fastener
Specialty, Inc.
Exxon Mobil Chemical Company

Facebook
Frito Lay
Fujifilm Diosynth Biotechnologies
Health Management Systems
(HMS)
Houston Methodist Hospital
IBM Corporation
ILC Dover
J&S Valve
Lawrence Livermore National
Laboratory
LEIDOS
Lockheed Martin
Los Alamos National Laboratory
Mechanical Reps, Inc.
Neudesic
Nevis Electricity Company Ltd
Oak Ridge National Laboratory
Raytheon Technologies

Revere Control Systems
SandTech Solutions
Schlumberger
Shell
Siemens
State Farm Mutual Insurance Co.
Surveillance Trailers, Inc.
TAS Concrete Construction
TechnipFMC
Thales
Union Pacific Railroad
United Independent School District
United States Air Force
United States Army
United States Marine Corps
United States Navy
USAA Enterprise
Wood PLC



TOP STUDENT JOB TITLES

3F5X1 - Administration Base Functional Manager
Aeronautical Engineer
Automation Engineer
Aviation Electrical Technician
Branch Manager
Civil Engineer
Client Technical Leader - Energy & Utilities
Facility Operations Manager
Construction Manager
Controls Project Engineer
Cybersecurity Technical Staff
Data Security Analyst
Deputy Facility Manager
Design Engineer
Engineering Manager
Engineering Technologist
Facilities Manager
Field Engineer
Industrial Engineer
IT Professional
Maintenance Manager
Mechanical Engineer
Network Professional
Operations Manager
Process Engineer
Project Engineer
Project Manager
Quality Assurance
R&D Engineer
Software Engineer
System Engineer
Technical Project Leader

TOP INDUSTRIES

Aerospace
Automotive
Chemical & Plastics
Construction
Defense Contractors
Energy
Information Technology
Industrial Manufacturing
Semiconductor
Military & DoD
National Labs
Oil & Gas
Software
Telecom





TEXAS A&M UNIVERSITY
Engineering

MASTER OF
ENGINEERING
TECHNICAL MANAGEMENT

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#engineeringleadership #engineeringmanagement #TAMU #METM



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