



COLLEGE OF ENGINEERING
LAMAR UNIVERSITY





Challenging Academics

Challenging Academics

Masters Programs

- **Master of Engineering (M.E.)**

Non-thesis M.E. programs are available in the following areas:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

- **M.E. and M.E.S. Specializations**

Chemical Engineering Specializations:

- Polymer Engineering
- Membrane Engineering
- Catalysis
- Environmental Engineering

Mechanical Engineering Specializations:

- Design
- Manufacturing
- Energy
- Power
- Aerospace
- Thermal
- Fluids
- Robotics

- **Master of Engineering Science (M.E.S.)**

Non-thesis M.E.S. programs are available in the following areas:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

- **Master of Engineering Management (M.E.M)**

Non-thesis M.E.M. programs are available in the following areas:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

- **Master of Science in Environmental Engineering (M.S.)**

Non-thesis M.S. programs are available in the following areas:

- Air Quality
- Environmental Engineering
- Environmental Health and Safety
- Environmental Policy
- Environmental Science
- Environmental Systems
- Environmental Toxicology
- Environmental Water Resources
- Environmental Waste Management
- Environmental Health and Safety
- Environmental Policy
- Environmental Science
- Environmental Systems
- Environmental Toxicology
- Environmental Water Resources
- Environmental Waste Management

- **Master of Science in Environmental Studies (M.S.)**

Non-thesis M.S. programs are available in the following areas:

- Air Quality
- Environmental Engineering
- Environmental Health and Safety
- Environmental Policy
- Environmental Science
- Environmental Systems
- Environmental Toxicology
- Environmental Water Resources
- Environmental Waste Management

Applying for Admission

Admission Requirements

Bachelor's degree from a regionally accredited institution with a minimum GPA of 3.0. GRE scores are required for all applicants. TOEFL or IELTS scores are required for international students.

How To Apply

Applicants should submit an application form, transcripts, GRE scores, and TOEFL/IELTS scores to the Office of Graduate Programs. Applications are reviewed on a rolling basis.



Campus Life

Lamar University offers a sense of community that you would expect from a smaller university while offering students the resources of a much larger university.

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Sujay Mahale

Chair: Dr. Thomas C. Ho



, B η P D M

Catalysis & Reaction Engineering; Carbon Dioxide Sequestration/Conversion; Biofuels

, D C P D O η

Abnormal Situation Management; Flare Modeling/Control

, D G P D A M

Environmental Surface Chemistry and Catalysis; Advanced Materials; Biomedical Research and Capillary Electrophoresis; Advanced Electrochemistry and Environmental Sensors

, Jη Gη r P D I η I η η η η η η

Simulation; Engineering Education

, J H P D A M

Biotechnology; Processing Engineering

, η Hη P D K

Fluidization; Metal Emissions Control; Air Quality Modeling

, C η Jη P D O r η

Bioprocessing; Nanobiomaterials

, L P D η Hη η

Department of Civil and Environmental Engineering

Chair: Dr. Liv Haselbach



Faculty & Research

- , N_k η B^J P D M_k r
Analysis and Design of Concrete Pavements; Fatigue and Fracture Properties of Cementitious Composites; Development and Characterization of Sustainable Infrastructure Materials
- , L H η P D η C_η η η
Sustainable Development, Permeable Pavements, Environmental Life Cycle Assessment, Sustainability
- , M J η P D P
Soil Evaluation and Stabilization; Foundation/Pile/Wall System Evaluation; Numerical Modeling in Geotechnical Engineering
- , J L P D η C_η
Fate and Transport of Pollutants; Water and Waste Water Engineering; Water-Energy-Food (WEF) Nexus
- , Q Q P D η M η
Environmental Hydrodynamics; Water Quality Modeling and Solute Transport Processes in Lakes, Streams and Groundwater; Water Resource Monitoring and Management
- , P D N_η M η η
Energy Positive Domestic Wastewater Treatment; Bio-remediation of Various Industrial Wastewaters; Water Treatment and Testing Systems for Emergencies; Food-Water-Environment Nexus
- , r P D N_η
Transportation System Analysis; GIS Applications in Transportation; Waterway Safety; Electric Vehicles
- , η P D η I η C r
Fiber-Reinforced Polymer Composites, Experimental Mechanics
- , η P D r P_η η η I
Water Quality Monitoring; Solid and Hazardous Waste Mitigation; Nutrient-Water-Energy Nexus; Fate and Transport of Refractory Organic Contaminants; Sustainability

P
B M P BMP E P A EPA
L E E D LEED
H₂
D L H
A
H
D

Phillip M. Drayer Department of Electrical Engineering

H A M E N , M - 3 η
Engineering Education

B r P D F η I η
Design, Control and Condition Monitoring of Electrical Machines; Alternator & Power System Components

η H P D N η C η
Security of Information/Communication Networks; Game/Learning Theory

K η H η D E L
Engineering Education

H M P D N , M - 3 η
Telecommunications; Image & Video Processing; Embedded Systems

G N P D I I η - 3 η η
Renewable Energy Sources; Electric Vehicle Design

P D
Radiation Effects Modeling & Hardening of Microchips, Low-Power Design & Reliability Analysis

G - 3 P D r - 3
Digital Signal/Image Processing; Biomedical Signal Analysis.

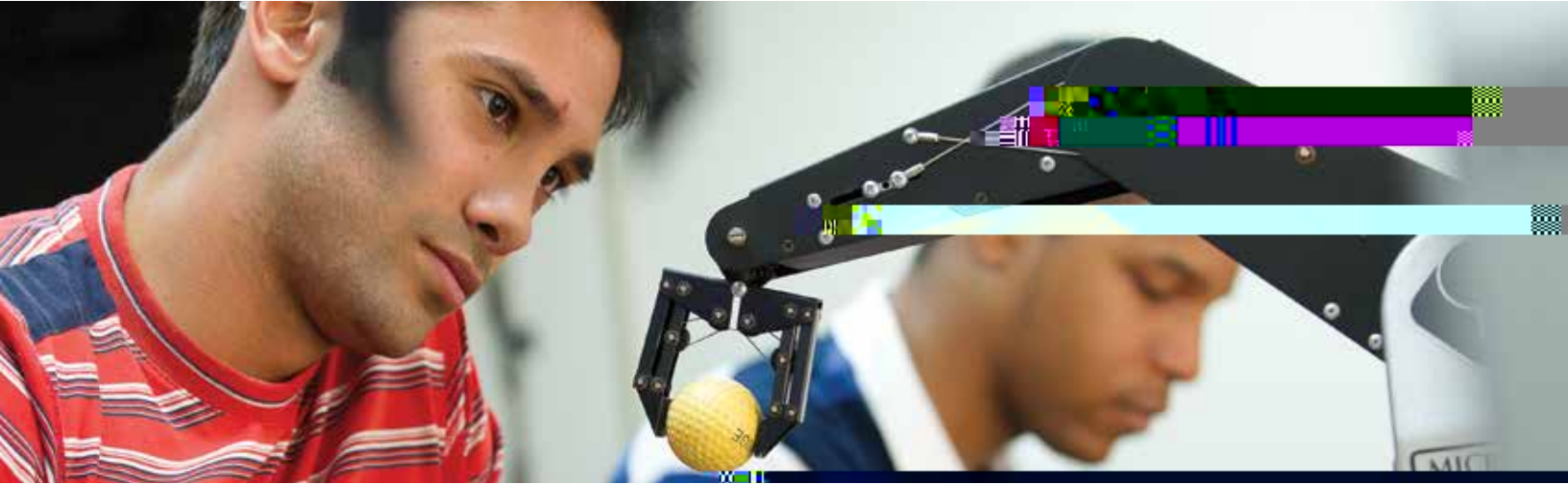
C r η r η P D O η
Computational Electromagnetics; RF and Microwave Modeling and Characterization of Electrical Faults, Presence and Vital Sign Detection, Antenna Design for RF

r P D N , M - 3 η
Cyberphysical Security; Wireless Sensor Networks, Satellite and Space Communications

H r P D M η r η η - 3 , E r η - 3 ,

Department of Industrial Engineering

Chair: Dr. Brian Craig



Faculty & Research

- , J r C P D H H
Maritime Transportation & Logistics; Manned-Unmanned Systems Integration; Crisis/Disruption Management.
- , B C r P D A M
Human Factors, Ergonomics and Safety Engineering
- , J C P D A M
Supply Chain Management; Optimization; Software Development; Natural Language Generation
- , M H P D A
Reliability; Data Analysis; Maintenance & Inventory Optimization; Game Theory; Warranty, Lease Contracts
- , r L P D N C
Human Factor/Ergonomics; Human-Computer Interaction; Neuroergonomics; Data Mining
- , L P D l C r
Micro-manufacturing; Laser Machining; Digital Manufacturing; Machine Design
- , A M P D A
Heuristics and Metaheuristics; Decision Support Systems; System Modeling and Optimization.
- , B r P D O D
Risk Management; Resilience Engineering; Engineering Management; Systems Engineering
- , E D E L
Optimization, Production Scheduling, Simulation, Manufacturing and Quality
- , r P D A
Reliability and Maintenance; Production and Inventory Management.
- , r P D H H
Risk Analysis, Quality Improvement, and Financial Engineering
- , r P D N C
Computational Optimization; Meta-Heuristics; Modeling and Simulation; Haptics; Computer Aided Design and Manufacturing (CAD/CAM), Engineering Education

Department of Mechanical Engineering

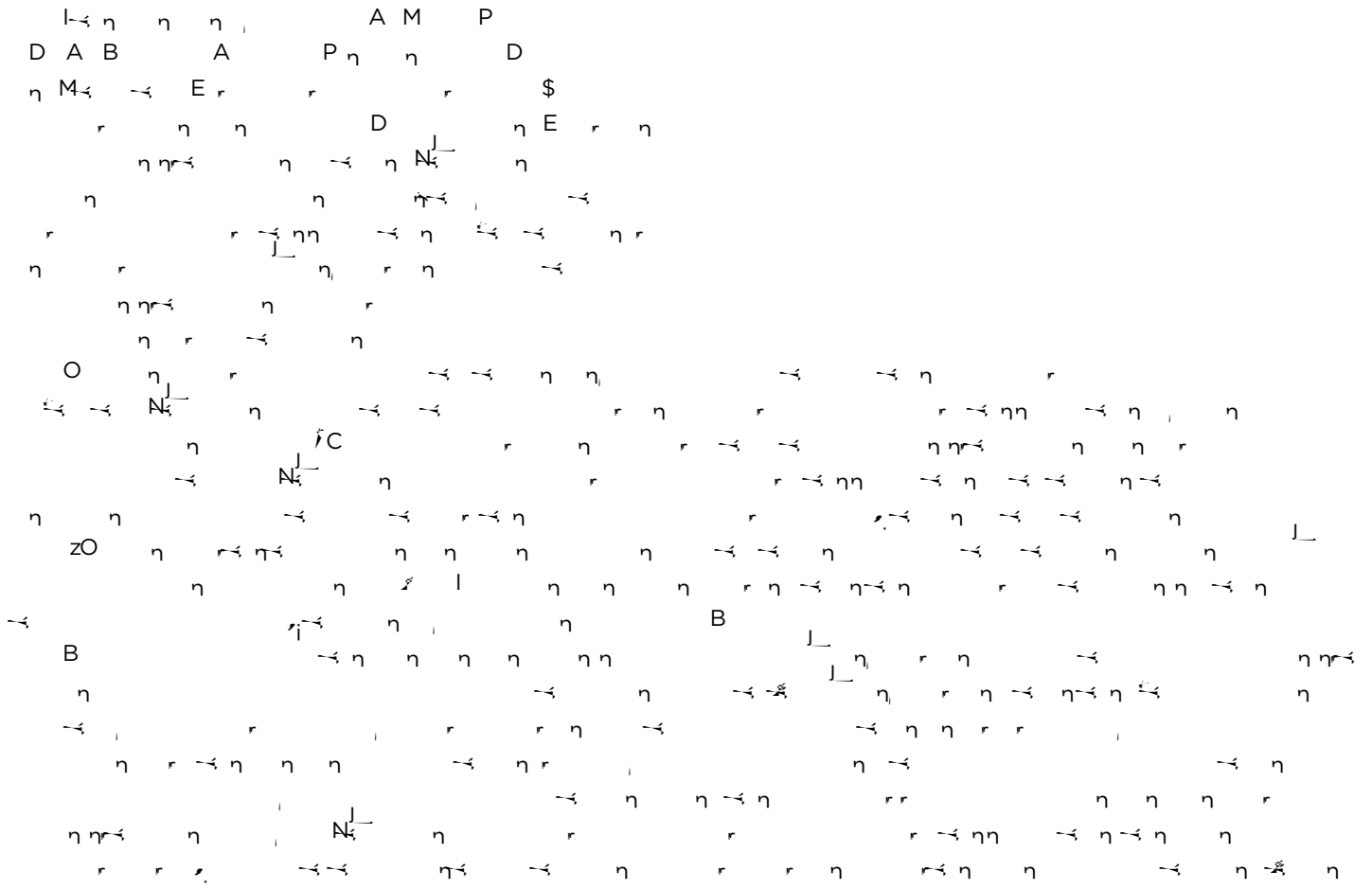
Chair: Dr. Hsing-Wei Chu



Faculty & Research

- , K J A r P D η M_k r
Simulation and Optimization of Energy and Renewable Energy Systems; Engineering Education
- , A B P D L_η
Tribology; Coatings and Thin Films Failure Analysis; Rotating Machinery
- , H r C P D η A
Network Flow Programming; ABaCAS
- , K D P D PO ECH η K_η
Micro- and Nanomanufacturing; Micro- and Nanomechanics; Metamaterials
- , F P D r
Characterization, Modeling and Reliability of Materials; Components and Systems in Micro- and Opto- Electronics Manufacturing and Packaging
- , G P D A η
Nanomaterials; Energy Storage and Energy Harvesting; Corrosion and Failure Analysis of Materials; Structure-Property-Correlation Studies; CO2 Sequestration
- , P r H P D C η
Supercritical Fluids; Heavy Crude Oil Upgrading; Bio-printing; Detonation Engine
- , r L P D C η
Thermal System Analysis and Optimization; Gas Turbine Cooling and Heat Transfer
- , C η P D A M
Anti-Corrosion & Anti-Fouling Coating; Water Harvesting; Two-Phase Cooling Technology
- , J η P D η M
Plant Biomechanics; Dynamic Responses and Vibrations of Micro-electronic Systems

Collaboration Hopes to Increase Efficiency in Mechanical Reactors



Ketan Solanki

H_η η /P I

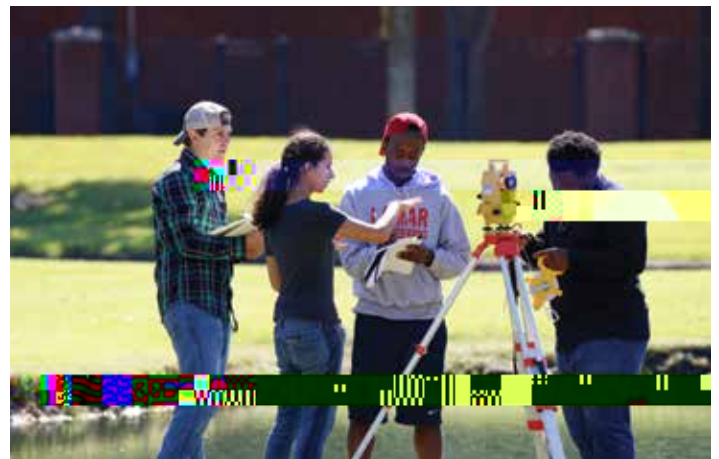
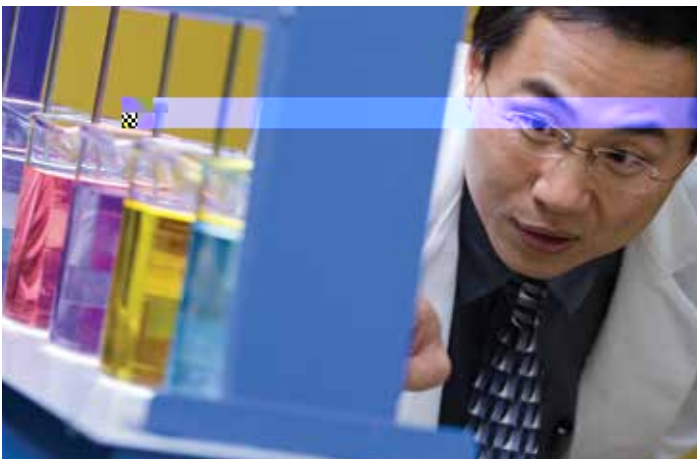
College of Engineering Research Centers



The Center for Advances in Water and Air Quality

CA AQ

CA AQ
CA AQ
EM



The Center for Advances in Port Management

Director: M. E. S.

CAPM
E
C
M

Texas Air Research Center/Texas Hazardous Waste Research Center

Director: D. T. a H

A C H C
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D C

