



TEXAS TECH UNIVERSITY SYSTEM™



Systems Engineering at Texas Tech University

Expertise and Research Areas

SE Research Areas at TTU



Effective Management of Technology

Energy Systems

Intelligent Software Systems

Nanomaterials

Pulsed Power Systems

Team and Organizational Learning Systems

Transportation Systems

SE Departments



Industrial Engineering (Lead)

Civil Engineering

Computer Science

Electrical and Computer Engineering

Mechanical Engineering

TTU Research Center Capabilities



Advanced Intelligent Systems (CAIS)

Nanotech Center (NTC)

Pulsed Power and Power Electronics (P3E)

Transportation Systems (TechMRT)

Wind Science and Engineering Research (WISE)

- Murdough Center for Engineering Professionalism (NIEE)
- Center for Engineering Outreach
- Water Resources Center (WRC)

Researchers - Industrial Engineering



Dr. David Wyrick, P.I.

Dr. Mario Beruvides, Co-P.I.

Dr. Jennifer Farris

Dr. Tim Matis

Dr. James Simonton

Researchers - Engineering



Dr. Dan Cooke, CS, CAIS Director

Dr. Joe Urban, CS Chair

Dr. Mark Holtz, Physics, NTC Co-Director

Dr. Jordan Berg, ME, NTC Co-Director

Dr. Magne Kristiansen, ECE, P3E Director

Phil Nash, CE, TechMRT Director

Dr. Andy Swift, CE, WISE Director

Sample Research Projects



Information systems for NASA exploration (Dan Cooke)

New spectrum-specific materials (IR, blue-green, UV) for LED's lasers, photodetection (NTC)

Energy devices, electronic jammers, IED-defeat devices, non-lethal crowd control (P3E)

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Sample Research Projects



Rapid replacement of damaged bridges, national performance measure benchmarking, asset and life cycle management (TechMRT)

Debris impact testing, wind energy production (WISE)

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Research Strengths



Total system approaches

Quantification and optimization

People-System issues

Benchmarking and decision making

Intelligent systems integration

Potential Research Topics



Net-centric future warfare systems

Virtual team design and development

Lean system learning for rapid response

Benchmarking system performance
improvement



Contact Information

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From here, it's possible!

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