

The top corners of the slide feature decorative geometric patterns. The top-left corner has a vertical grid of squares, with some squares containing diagonal lines or circles. The top-right corner has a similar grid, but with a circle in the top-right square and an 'X' in the bottom-right square.

B.S.E. Engineering

B.S.E. Mechanical Engineering

Kanbar College | School of Design & Engineering

Muthu Govindaraj, Ph.D.

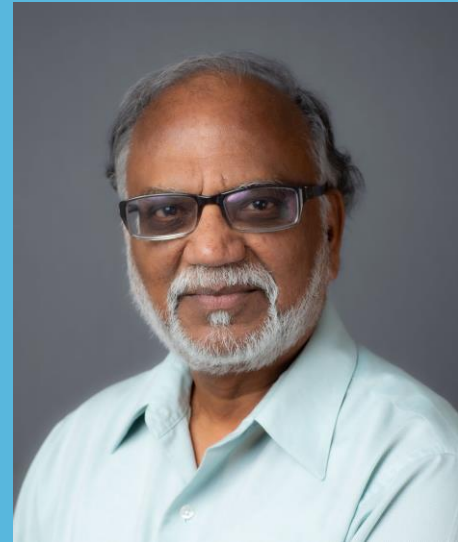
PROFESSOR AND DIRECTOR, ENGINEERING PROGRAM



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Jefferson

CREATE WHAT'S NEXT



Engineering
Accreditation
Commission

B.S.E. in Engineering

- Industrial and Systems Engineering
- Textile Engineering

B.S.E. in Mechanical Engineering

- A century of experience in educating professionals.
- Agile and quickly adopt new technologies and emerging disciplines.
- Faculty members with several years of experience in industry, research, and education.
- Individual advising of students by faculty members.
- Small class sizes with excellent rapport between faculty members and students.

B.S.E. in Engineering | Total: 127.5 credits

First Year (35 credits)

Major Core

- Introduction to Engineering
- Introduction to Computing
- Engineering Drawing

DEC Core

- Integrative Design Process

Hallmarks Core

- Pathways Seminar
- Writing Seminar I
- Debating U.S. Issues
- Calculus I
- Physics I with Lab
- Chemistry I with Lab
- Calculus II

Second Year (35 credits)

Major Core

- Physics II with Lab
- Calculus III
- Engineering Statics
- Differential Equations
- Engineering Dynamics
- Engineering Statistics I
- Mechanics of Materials

DEC Core

- Systems: Scientific Understanding
- Framework: Business Models

Hallmarks Core

- Global Diversity or Global Citizenship
- Writing Seminar II

Third Year (29.5 credits)

Major Core

- Fundamentals of Electrical - Engineering I or Operations Research I
- Integrated Engineering Product Development
- Fluid Mechanics
- Numerical Methods for Engineers
- Thermodynamics and Heat Transfer I
- Engineering Design Seminar

[2] Engineering Concentration Courses

DEC Core

- Integrative Seminar: Ethnographic Research Methods

Hallmarks Core

- American Diversity
- Debating Global Issues

Fourth Year (28 credits)

Major Core

- Engineering Economics
- Operation Research I or Fundamentals of Electrical Engineering I
- Introduction to Mechatronics
- Senior Design Project I
- Senior Design Project II

[2] Engineering Concentration Courses

Hallmarks Core

- Capstone Folio Workshop
- Ethics

B.S.E. in Mechanical Engineering | Total: 127.5 credits

First Year (35 credits)

Major Core

- Introduction to Engineering
- Introduction to Computing
- Engineering Drawing

DEC Core

- Integrative Design Process

Hallmarks Core

- Pathways Seminar
- Writing Seminar I
- Debating U.S. Issues
- Calculus I
- Physics I with Lab
- Chemistry I with Lab
- Calculus II

Second Year (35 credits)

Major Core

- Physics II with Lab
- Calculus III
- Engineering Statics
- Differential Equations
- Engineering Dynamics
- Engineering Statistics I
- Mechanics of Materials

DEC Core

- Systems: Scientific Understanding
- Framework: Business Models

Hallmarks Core

- Global Diversity or Global Citizenship
- Writing Seminar II

Third Year (29.5 credits)

Major Core

- Fundamentals of Electrical Engineering I
- Integrated Engineering Product Development
- Fluid Mechanics
- Numerical Methods for Engineers
- Thermodynamics and Heat Transfer I
- Introduction to Material Science
- Machine Design
- Engineering Design Seminar

DEC Core

- Integrative Seminar: Ethnographic Research Methods

Hallmarks Core

- American Diversity
- Debating Global Issues

Fourth Year (28 credits)

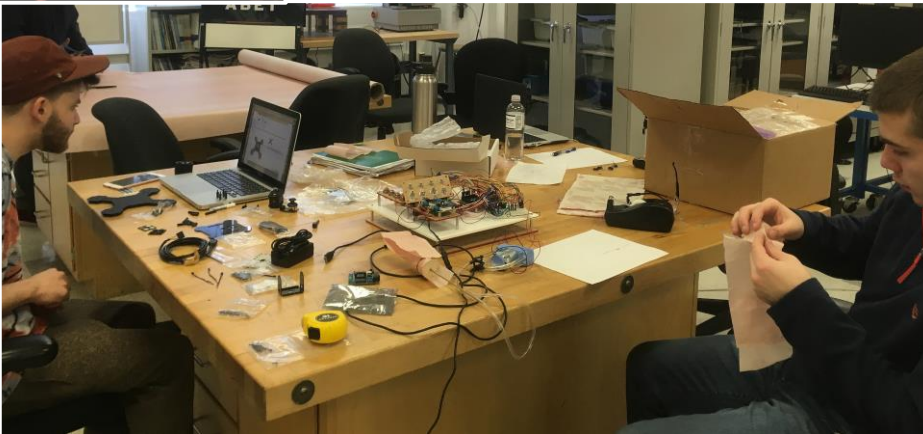
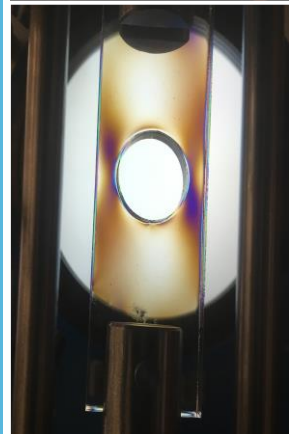
Major Core

- Engineering Economics
- Introduction to Mechatronics
- System Dynamics and Control
- Design for Manufacturability
- Thermodynamics and Heat Transfer I
- Senior Design Project I
- Senior Design Project II

Hallmarks Core

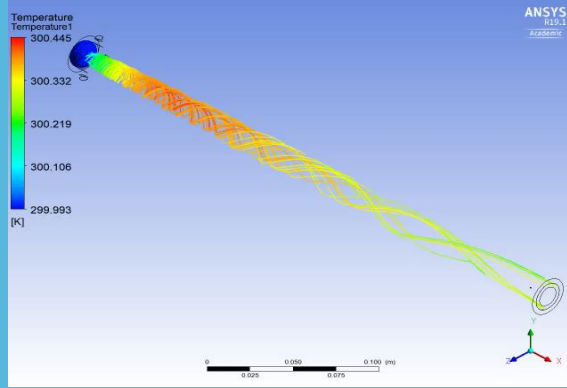
- Capstone Folio Workshop
- Ethics

SAMPLE STUDENT WORK

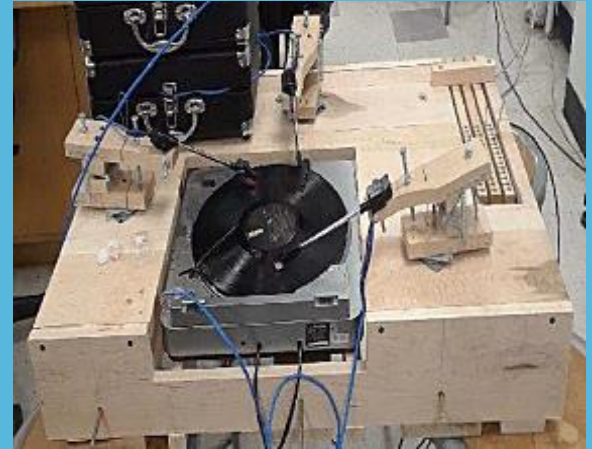




Nano satellite



Simulation of a vortex tube for a cooler



A multi-tonearm DJ console

Employers of Jefferson Engineering Graduates

Boeing

ILC Dover

Target

Tenneco

Naval Surface Warfare Center

Coca Cola

Defense Logistics Agency

Accenture

US Army Natick Soldier Systems Center

Lockheed Martin

Ellison Technologies



Jefferson

Thomas Jefferson University