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Graduate Opportunities in MATERIALS & MANUFACTURING

Mohsen Eshraghi, Ph.D.

Associate Professor, Mechanical Engineering

Director, Materials Science and Engineering Program

Director, Advanced Materials and Manufacturing Laboratory (AM²L|AM2L.com)

Panelists:

- Dr. Mohsen Eshraghi, Associate Professor, Mechanical Engineering, MSE Director
- Dr. Chris Bachman, Assistant Professor, Mechanical Engineering
- Dr. Yangyang Liu, Assistant Professor, Chemistry
- Dr. Travis Hu, Assistant Professor, Mechanical Engineering
- Miray Ouzounian, ME graduate, Master’s Student, Materials Science and Engineering
- Melvin Ramos, ME graduate, Master’s Student, Materials Science and Engineering

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Why should I pursue a Master's degree in the area of Materials and Manufacturing?

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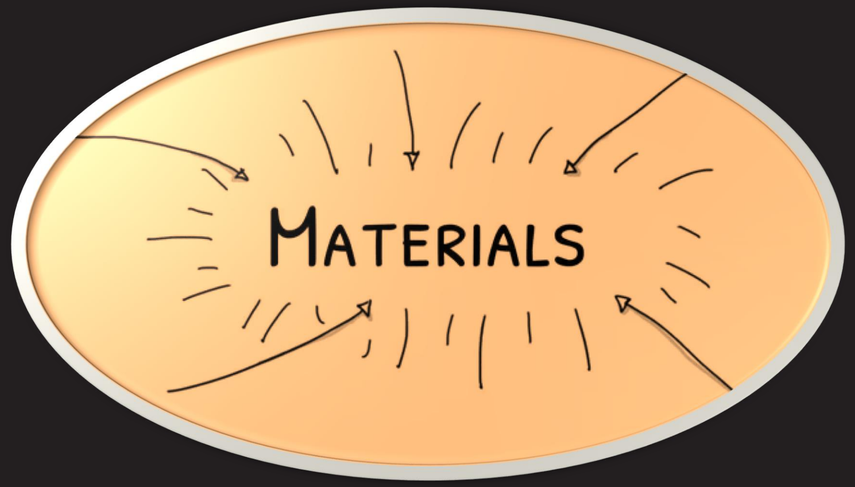

In the race to make things stronger, cheaper, lighter, more functional and more sustainable, the manipulation of materials, their properties and processes is key. This means graduates in this area can work, or do research in most companies and institutions in the world.

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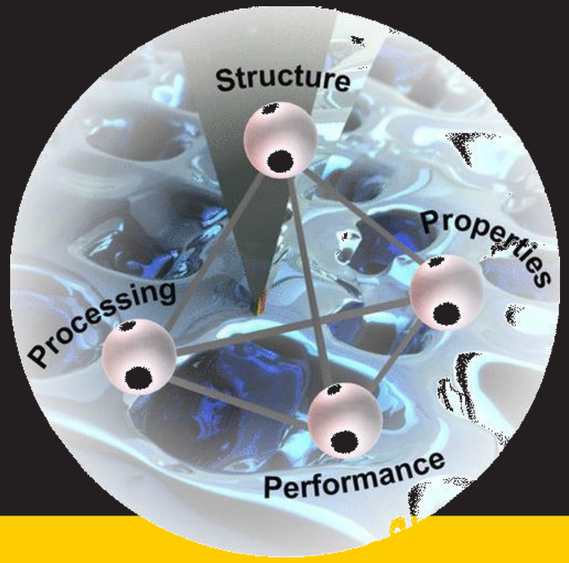
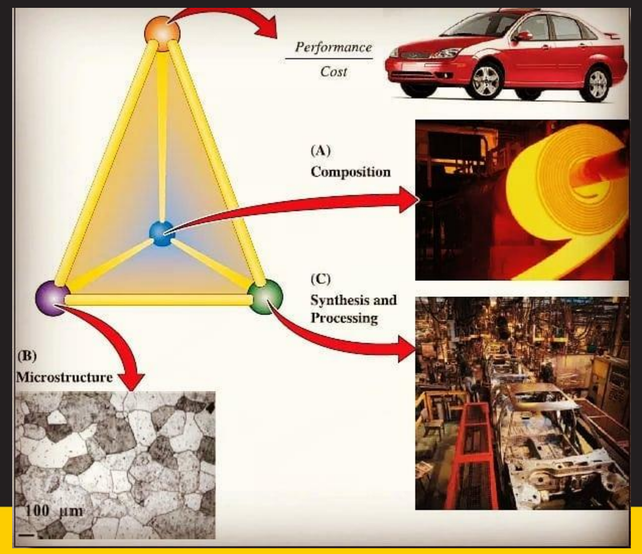
MS&E is an interesting, multi-disciplinary area to study

- In studying materials, there are elements of physics, mathematics, biology and chemistry, all taught in a cohesive, and self-contained way within the course.
- Giving you the tools to make a real difference in industry and research
- Some of the themes: nanomaterials, advanced manufacturing, smart materials, composites, energy generation and storage, green and sustainable materials





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There are lots of jobs in the area of MS&E

- The ability to create new materials and to make existing materials perform better is the key to many advances in areas of science and engineering
- There are smaller numbers of materials graduates than other disciplines

Johnson & Johnson

JPL

Ford

SAMSUNG

intel

SPACEX

BOEING

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Why should I pursue a Master's degree in Materials Science and Engineering at Cal State LA?

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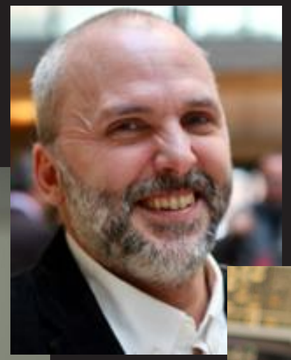
Interdisciplinary Faculty from Two Colleges and Five Departments

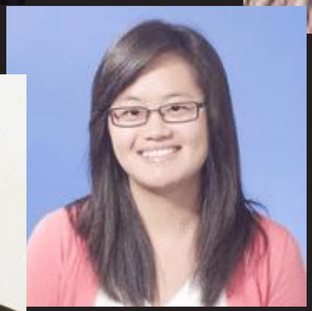






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Your subhead goes here

Great Research Opportunities

- Nanomaterials and Nanomechanics
- Additive Manufacturing (3D Printing)
- Computational Materials Science
- Biomaterials
- Semiconductors and Electronic Materials
- Superconductivity and Magnetism
- Fuel Cells, Batteries, and Renewable Energy
- Metallurgy
- Graphene and Carbon Nanotubes

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Support Programs & Funding Opportunities

- Partnership for Research and Education in Materials (PREM)
- Center for Energy and Sustainability (CEaS)
- Advanced Materials and Manufacturing Laboratory (AM^2L)
- NASA Data Intensive Research and Education Center for STEM (DIRECT-STEM)
- Office of Graduate Studies
- Individual Faculty

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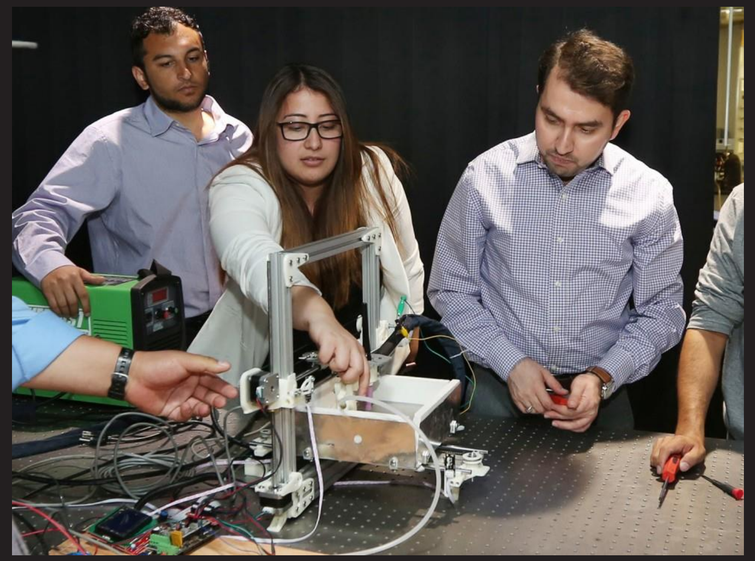
Program Highlights

- *Gateway to a PhD program in MSE*
- *Well-prepared for industrial or governmental positions*
- *Equipped with advanced knowledge of topics related to MSE*
- *Well-equipped to work towards solving environmental challenges through innovations in MSE*



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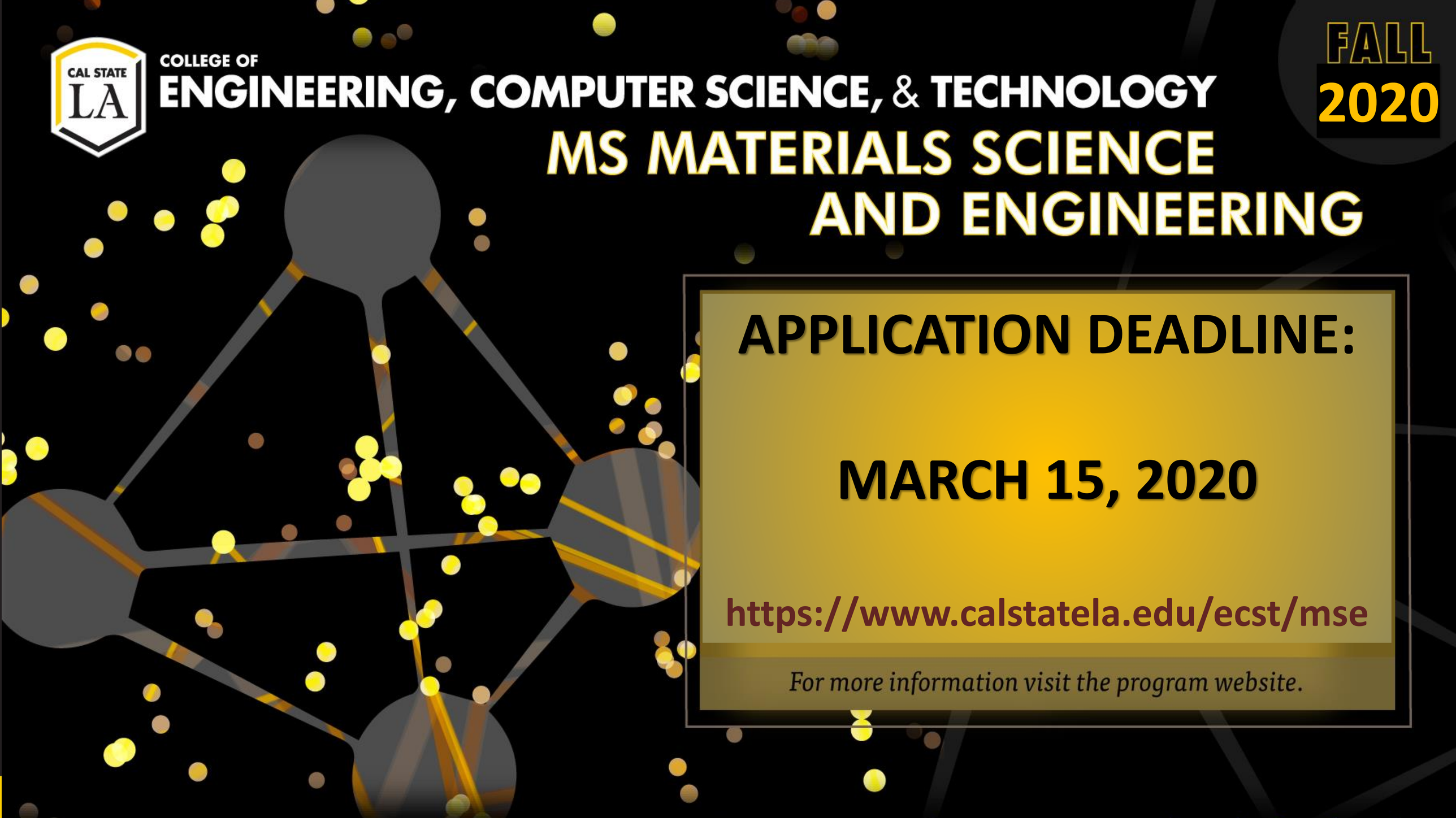
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COLLEGE OF
ENGINEERING, COMPUTER SCIENCE, & TECHNOLOGY
FALL
2020
MS MATERIALS SCIENCE
AND ENGINEERING
APPLICATION DEADLINE:
MARCH 15, 2020
https://www.calstatela.edu/ecst/mse
For more information visit the program website.

Admission

Application FAQs

1. Applicants must possess a BS Degree in engineering, mathematics, chemistry, physics, or other natural sciences field with a GPA of 3.0 or better. A promising applicant with a GPA between 2.5 and 2.99 may be admitted as a special action student. Prerequisite courses may be required for students whose degree requirements did not include traditional mathematics and science related courses.
2. Graduate Record Exam (GRE) score is NOT required.
3. Letters of Recommendation are NOT required.

http://www.calstatela.edu/ecst/mse

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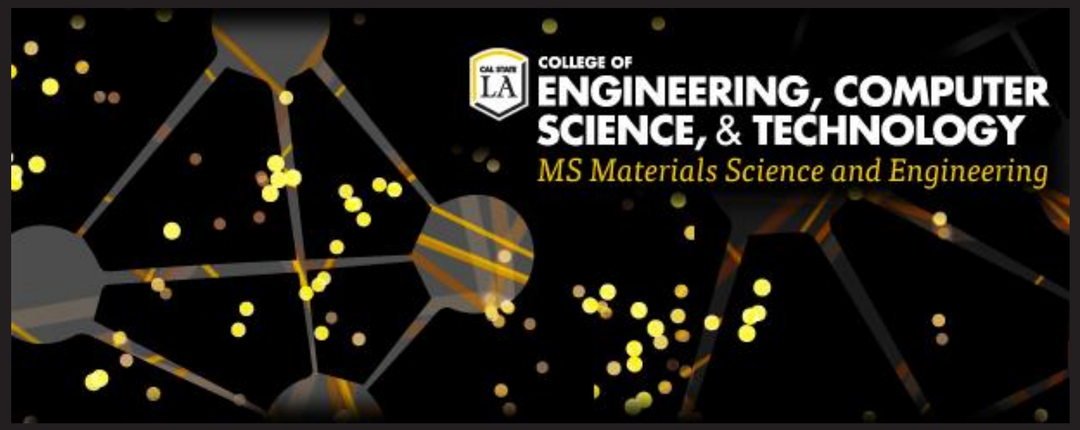


Contact Us

College of Engineering, Computer Science and Technology
CALIFORNIA STATE UNIVERSITY, LOS ANGELES
5151 State University Drive, Los Angeles, CA 90032

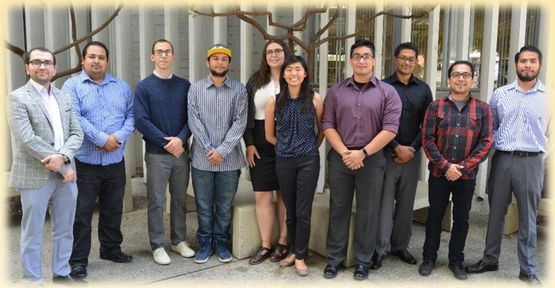
Phone
323.343.5218

Email
MSE-ECST@calstatela.edu | Mohsen.Eshraghi@calstatela.edu

Web
http://www.calstatela.edu/ecst/mse

Advanced Materials and Manufacturing Laboratory (AM²L|AM2L.com)

Virtual Tour: https://my.matterport.com/show/?m=wRKadpJ6wmH

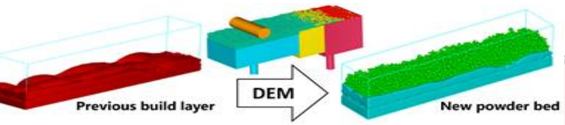


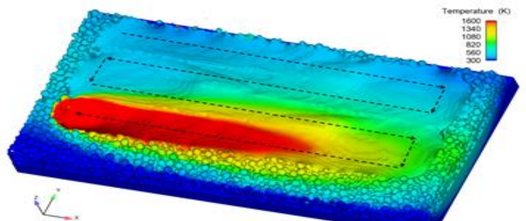
Research Areas:

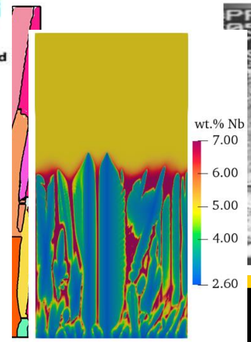
- **Additive Manufacturing**
- **Computational Materials Engineering**
  - ❖Powder Bed Fusion Additive Manufacturing
  - ❖Engineering Solidification Microstructure for Metal AM
  - ❖Location Specific Grain Structure for Metal AM
  - ❖Wire-Arc Metal Additive Manufacturing

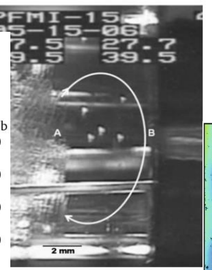
Recent Alumni:

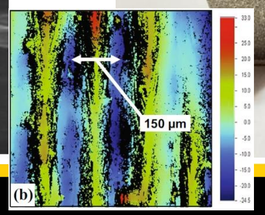
- Antonio Magana (Modeling PBF AM) – *Now at Northrop Grumman*
- Miguel Navarro (Wire Arc AM) – *Now at Northrop Grumman*
- Ryan Lenart (Modeling Solidification in AM) – *Now at NAVAIR*
- Ernesto Covarrubias (Surface Roughness in AM Builds) – *Now at Boeing*

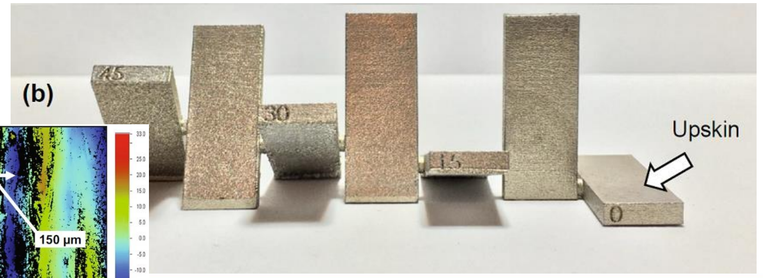


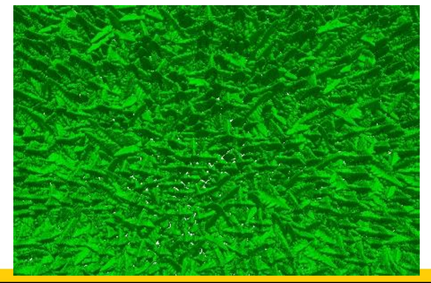


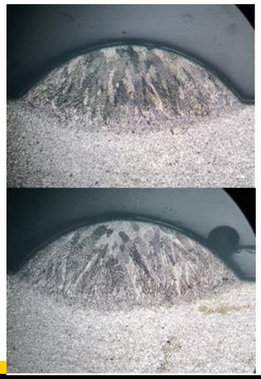












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