

FUSION ENGINEERING INSTITUTE

LET'S ACHIEVE FUSION ENERGY, AT SCALE.
TOGETHER.

Our proven experts are available to accelerate your inertial and magnetic fusion efforts.

Collaborate with us to solve your toughest fusion challenges while leveraging our specialized fusion-relevant research labs and computing infrastructure.



We offer rapid and cost-effective R&D partnerships across the full suite of mission-critical disciplines for fusion, including:

Materials development and diagnostics

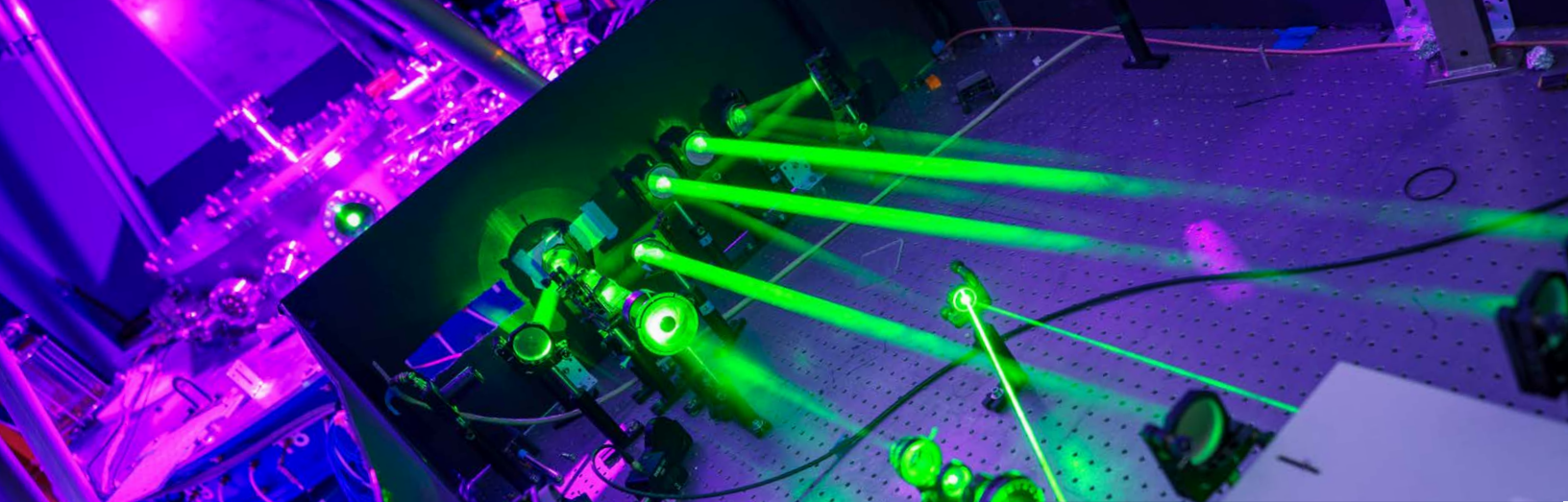
Lasers, optics and controls systems

Plasma physics and modeling

High performance computing,
artificial intelligence

ACCESS TO THE NATIONAL FUSION ECOSYSTEM

Thanks to our strategic collaborations, our industry partners can tap into the full US fusion innovation ecosystem. This includes the US National Labs and cutting-edge resources including facility-scale lasers as well as tokamaks.



RESEARCH FACILITIES

FUSION MATERIALS DEVELOPMENT AND TESTING

State of the art facilities for synthesizing and processing fusion materials, including plasma facing materials, structural materials, optical and magnetic materials. One-of-a-kind facility for the simultaneous exposure of fusion materials to both plasmas and high-energy particles, replicating fusion environments.

LASER-MATTER INTERACTION

High-intensity light sources and diagnostics for the study of energy-matter interaction.

FUSION DATA SCIENCE AND DIGITAL ENGINEERING CENTER

The artificial intelligence, digital twins, predictive modeling and high performance computing needed to develop and maintain fusion power plants. In collaboration with General Atomics.

NANO AND MICRO FABRICATION

Advanced nano and micro fabrication clean room facilities and electron microscopes. These and other materials fabrication and analysis facilities are available to help industry partners iterate quickly and make the most of fusion R&D collaborations.

FUSION WORKFORCE DEVELOPMENT

- Industry-sponsored research projects prepare students for the fusion workforce
- Internships and targeted recruiting
- Visiting Industry Fellows
- A voice in curriculum development



Learn more about our faculty, students, workforce development research facilities online:

fei.ucsd.edu



CONNECT WITH US

Javier E. Garay

Director, Fusion Engineering Institute
Professor, Mechanical & Aerospace Engineering

jegaray@ucsd.edu

Cody Noghera

Chief Corporate Relations Officer,
Jacobs School of Engineering
UC San Diego

cnoghera@ucsd.edu

Adrienne Bolli

Executive Director of Development,
Jacobs School of Engineering
UC San Diego

abolli@ucsd.edu