

Webinar November 8, 2023 2:00 p.m. EST | 11:00 a.m. PST,



# Building and Maintaining University-Industry Partnerships

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Shannon O'Donnell | Jose Diaz Aquino | Soma Chakrabarti

# Agenda

- Introduction to the topic and the speakers
- Successful University-Industry Partnership Examples
  - Siemens (Shannon O'Donnell)
  - General Mills (Jose Diaz Aquino)
  - Ansys (Soma Chakrabarti)
- Key ingredients that make these partnerships possible (building and maintaining)
  - Siemens (Shannon O'Donnell)
  - General Mills (Jose Diaz Aquino)
  - Ansys (Soma Chakrabarti)
- Questions/Answers

[www.ansys.com](http://www.ansys.com)

# Ansys Academic Teaching and Research Partnerships

by

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# Strategic Curriculum Partnerships

Ansys partners with Universities across the globe on co-curriculum programs including free, online courses, certificate programs, Master's Degree Programs and more to support students and career engineers to gain an engineering simulation skillset.



Cornell University

## / A Hands-On Introduction to Engineering Simulations

- Free online course on EdX.
- 6-week course, 4-6 hours per week
- Students learn to solve real-world engineering problems using fluids and structural simulation.

<https://www.edx.org/learn/engineering/cornell-university-a-hands-on-introduction-to-engineering-simulations>



## / Fluid Dynamics Simulations Using Ansys

- Paid certification program
- 2-week course, 5-7 hours per week
- Students learn to create reliable and validated simulations and approach CFD problems like experts.

<https://ecornell.cornell.edu/certificates/engineering/fluid-dynamics-simulations-using-ansys/>



University of Colorado  
Boulder

## / High-Speed Digital Engineering (PMP-HSDE)

- Professional Master's Program
- 10-course program
- Incorporates Ansys electronics simulation into the curriculum of high-speed digital engineering topics from signal and power integrity to electromagnetic compatibility.

[High-Speed Digital Engineering | Electrical, Computer & Energy Engineering | University of Colorado Boulder](#)



## / Numerical Simulation in Engineering with Ansys

- Online Master's Program
- three disciplines offered
- The goal is to train experts in the computational simulation of fluid mechanics, solid mechanics, and electronics using Ansys software.

<https://www.ansys.com/academic/learning-resources/online-masters-degree>



# Giving Student Teams a Competitive Edge with Ansys Simulation

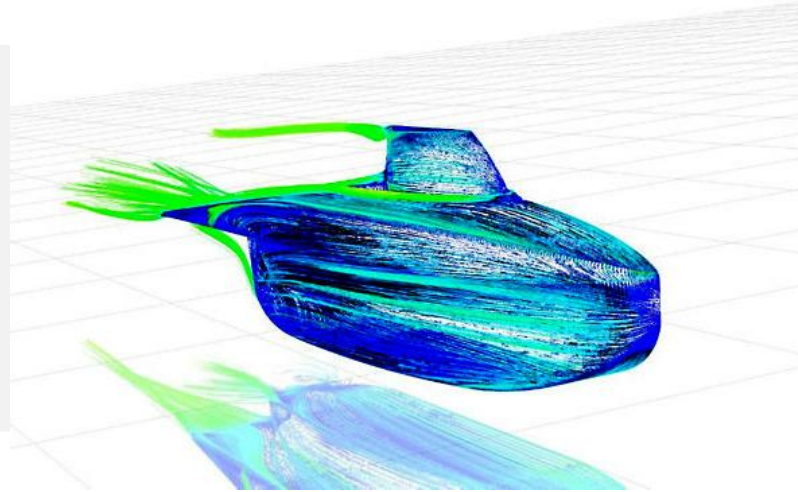


## UNAM Students' Dreams Take Flight with Simulation

### Universidad Nacional Autónoma de México

*"Once you get the basics of one Ansys simulation tool, it's easy to extrapolate this knowledge and apply it to other Ansys simulation tools."*

<https://www.ansys.com/blog/unam-ansys-academic-student-team-partner-program>



## Students Design Solar Race Car with Simulation and the Sun

### University of Toronto

*"Ansys simulation especially is easy to learn once you have exposure to one or two sessions. It's fairly straightforward and easy to pick up with time."*

<https://www.ansys.com/blog/students-design-solar-race-car-with-simulation-and-the-sun>



## Designing a Better Formula SAE Car with Ansys

### University of Bath & IIT Bombay

*"Our team was able to increase the rear wing and side wing's downforce by 11% with the use of Ansys tools."*

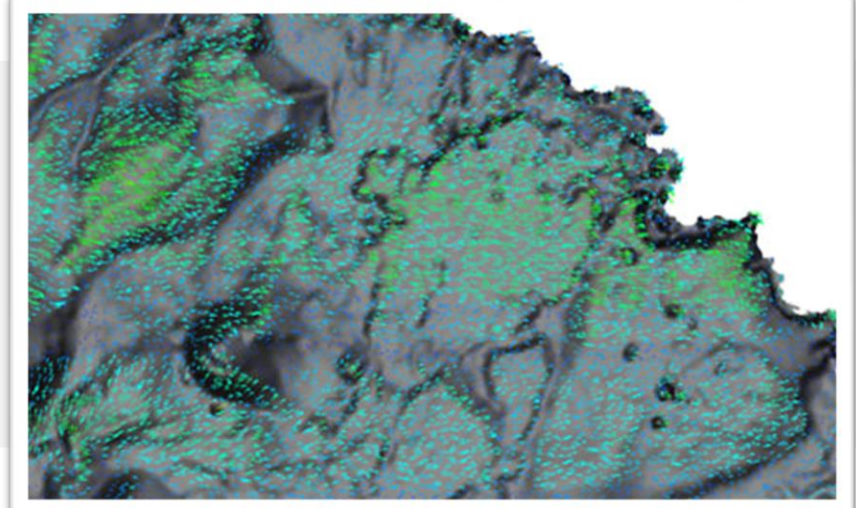
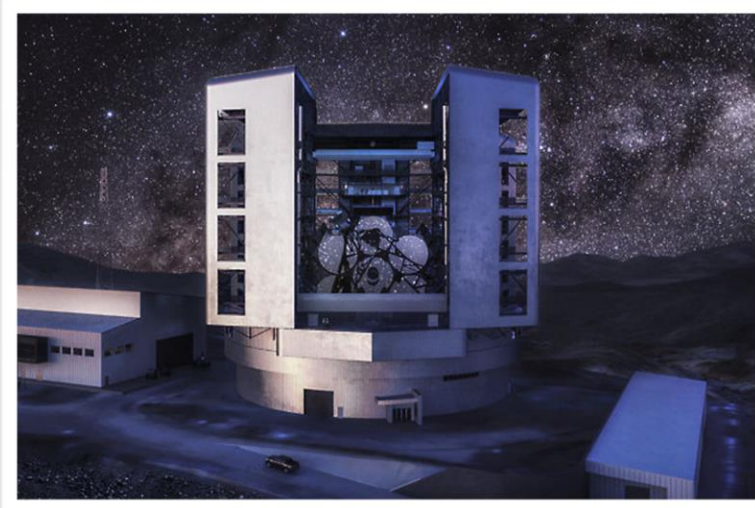
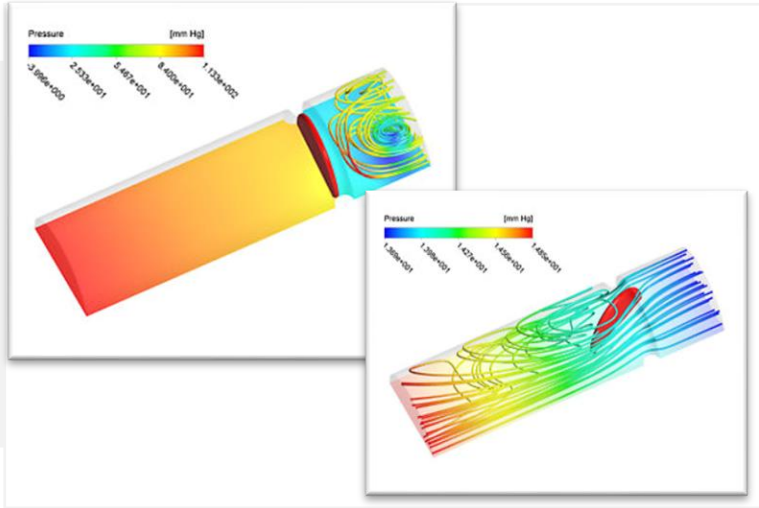
<https://www.ansys.com/blog/a-formula-for-success>

# / Types of Academic Research and Technical Collaborations

- Sponsored research (direct funding or gifts from Ansys)
  - Specific research contracts
  - Gifts to support or build relationships
- In-kind support (use of software)
- Project support (e.g., projects as part of industry partnership programs)
- Consortia memberships or industry affiliate memberships
- Collaborative R&D (CR&D) / Funded Development Projects including academics
- Start-up Program
- Academic/Clinic-driven incubators
- Support letters and commercialization commitments with researcher-led agency funded projects
- Collaboration in Ansys Open Innovation Program

[Ansys for Researchers | Students + Academic](#)

# Unleashing Innovation with Ansys Simulation in Research



## Using Ansys for Doctoral Research in Cardiovascular Engineering

Doctoral Research at the University College London (UCL), UK

<https://www.ansys.com/blog/using-ansys-for-doctoral-research-in-cardiovascular-engineering>

## A Glimpse into Deep Space with Extreme Optical Engineering

Research at the University of Arizona, USA

<https://www.ansys.com/blog/extreme-optical-engineering>

## Using Simulation to Understand Changing Wind Behaviors

Research at the University of Pretoria, South Africa

<https://www.ansys.com/blog/cfd-changing-wind-behaviors>

The Ansys logo consists of a stylized 'A' symbol on the left, formed by two parallel diagonal lines (one yellow, one black), followed by the word 'Ansys' in a bold, black, sans-serif font.

**Ansys**

[www.ansys.com](http://www.ansys.com)

