

# **Carlos Castano, Ph.D.**

**Associate Professor, Department of Mechanical and Nuclear Engineering at VCU College of Engineering**

Richmond, VA, US

Professor Castano specializes in tailoring surface properties of materials for applications in energy, transportation, and manufacturing.

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## **Biography**

The Castano's research group focuses on tailoring the surface properties of materials by physical and chemical methods for engineering applications. The research areas are organized around four main fields: Nanotechnology, Surface Science, Functional Coatings, and Materials under Extreme Environments - Irradiation, Plasmas, and High Temperatures.

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## **Industry Expertise**

Nanotechnology, Manufacturing, Machinery, Aerospace, Automotive, Metalworking and Coatings Technology, Steel, Ceramics and Glass, Semiconductors, Mechanical/Industrial Engineering, Paint, Renewables and Environmental, Chemicals, Pharmaceuticals, Research, Education/Learning

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## **Areas of Expertise**

Surface Engineering, Functional Coatings, Nanomaterials Engineering, Corrosion Engineering, Thin film deposition and characterization, Lightweight Alloys, Plasma Physics, Advanced Materials Characterization, Tribology

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## **Affiliations**

Alpha Sigma Mu (Honorary Member), The Minerals, Metals & Materials Society (Member), The American Ceramic Society (Member)

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## **Education**

**Virginia Commonwealth University**

Postdoc Chemical and Life Science Engineering

**Missouri University of Science and Technology**

Ph.D. Materials Science and Engineering

**National University of Colombia**

M.Sc. Engineering - Materials and Processes

## Accomplishments

### Roberto Rocca Fellow

Roberto Rocca Fellowships are given exceptional university graduates who are citizens of Argentina, Brazil, Colombia, Indonesia, Mexico, Venezuela and Romania, and who will enter a Ph.D. program outside their own country or who have already begun their studies towards a Ph.D. at a university outside their own country. <http://www.robtorocca.org/en/fellowships.aspx>

### Outstanding MSE Graduate Student Award at Missouri S&T

The materials science and engineering department at Missouri S&T recognizes every year a graduate student for his research and teaching outstanding contributions

### NSF ASSIST/LEVERAGE Awardee 2019

This award allows the faculty to participate in the Academic and Research Leadership Symposium (ARLS). The ARLS has two threads: (1) a faculty development thread, and (2) a research networking thread. The ARL Network promotes the discussion of ideas for improving networking among underrepresented minority faculty at a local and national level.

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