

GAUTHAM KRISHNAMOORTHY

Ann and Norman Hoffman Associate Professor of National Defense/Energetics
Department of Chemical Engineering,
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PROFESSIONAL PREPARATION

- Ph.D., *Chemical Engineering*, University of Utah, Salt Lake City** **2005**
Guru: Prof. Philip J. Smith
- M.S., *Chemical and Fuels Engineering*, University of Utah, Salt Lake City** **2002**
Guru: Prof. Edward M. Trujillo
- B.E., *Chemical Engineering*, Bangalore University, INDIA** **1998**

PROFESSIONAL DEVELOPMENT

08/2016 – Present: Ann and Norman Hoffman Associate Professor of National Defense/Energetics (Tenured), University of North Dakota, Grand Forks, ND

08/2011 – 07/2016: Ann and Norman Hoffman Assistant Professor of National Defense/Energetics (Tenure track), University of North Dakota, Grand Forks, ND

11/2009 - 08/2011: Assistant Professor (Non - Tenure Track), University of North Dakota, Grand Forks, ND

07/2005 - 10/2009: Consulting Engineer, ANSYS Inc., Lebanon, NH

NOTABLE ACADEMIC AWARDS

- The UND Foundation/McDermott Faculty Award for Excellence in Research and/or Creative Activity (2021)
- Olson Professorship, College of Engineering and Mines, UND (2018 – 2020)
- Outstanding Professor of the Year (Student’s Choice Award for Teaching), School of Engineering and Mines, UND (2012)

AWARDED FUNDING (*Over \$ 2.2 Million in awarded funding as PI/Co-PI/Major-Participant*) – Notable grants as PI include:

1. “Interfacing MFIX with PETSC and HYPRE linear solver libraries,” **DOE-NETL University Coal Research** (\$ 400K), 9/2015 - 8/2019, PI
2. “A Multiphase Modeling Framework for Second Generation Post-Combustion Carbon Capture Systems,” **DOE-NETL University Coalition for Fossil Energy Research (UCFER)** (\$ 153K), 12/2018 – 12/2019, PI.

3. “An Integrated Approach to Predicting Ash Deposition and Heat Transfer in Coal Fired Boilers,” DOE-NETL University Coal Research (\$ 400K), 7/2019 - 6/2022, PI

JOURNAL PUBLICATIONS (37 Peer Reviewed Journal Publications)

Citations: <http://scholar.google.com/citations?user=TAR4Vw4AAAAJ>

TEACHING SUMMARY

Student Assessment of Teaching Scores (out of 5)

- Average from 142 credit hours of on-campus instruction: **4.57/5.0**
- Average from 93 credit hours of distance-education sections: **4.43/5.0**

Current Teaching Assignments: (*New courses developed by me)

CHE 301: Transport Phenomena (4 credits) (Fall)

CHE 422*: Capstone in Energetics (1 credit) (On demand)

CHE 501: Advanced Transport Phenomena (3 credits) (Spring of even years)

CHE 509: Advanced Chemical Engineering Thermodynamics (3 credits) (Spring of odd years)

CHE 530*: Combustion Theory and Modeling (3 credits) (Spring of odd years)

CHE 531*: Rocket Propulsion (3 credits) (Fall of even years)

CHE 532*: Explosives: Theory and Modeling (3 credits) (Fall of odd years)

Courses Taught in the Past:

Fundamentals of Process Engineering (U. Utah); Chemical Engineering Thermodynamics; Statistics and Numerical Methods; Chemical Engineering Lab III; Chemical Engineering Lab IV; Molecular Thermodynamics and Kinetics; Advanced Separations

STUDENTS SUPERVISED

Post - Doc (1 Current)

Ph. D (3 Graduated, 3 Current)

M.S (6 Graduated, 2 Current)

Under-Graduate Research Assistants (involved 20+ students since 11/2009)

NOTABLE PROFESSIONAL SERVICE ACTIVITIES

Journal Reviewer (60 + manuscripts reviewed)

Proposal Reviewer (Department of Energy, Department of Defense)

Committees Chaired:

2018 – Current Chemical Engineering Department ABET coordinator

2012 – 2018 Graduate Program Director (Chemical Engineering Graduate Program)

2012 – 2017 Graduate Program Director (Environmental Engineering, Sustainable Energy Engineering Graduate Programs)