# In-Residence Program with Flexible Start Dates

This three-course program is taught on the NPS campus in Monterey, CA, typically starting in the Fall. The elective can be taken at any time, it is preferred that it comes before MA 4404. Visit online for more details and requirements.

#### **Program Prerequisite**

#### **Discrete Mathematics**

(MA3025, MA2025, MA1025, or equivilent)

#### Curriculum

Graph Theory and Applications (MA4027) **And One Elective:** 

Network Traffic Analysis (CS4558), Network Flows and Graphs (0A4202), or Cooperation and Competition (MA4400)





Recent Graduates with Program Coordinator Associate Professor Ralucca Gera and Professor Carlos Borges "The world is a complex place.

We must embrace the complexity in our scientific techniques or be irrelevant."

-Brigadier General (ret.) Chris Arney, PhD
Director, Network Science Center (U.S. Military Academy)

#### **Contact Information**

**Program Manager** Ralucca Gera, Ph.D.

#### **Department of Applied Mathematics**

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www.nps.edu/math/NetSci

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- **■** Computer Networks
- Social Networks
- Big Data!





## "We cannot solve our problems with the same thinking we used when we created them."

-Albert Einstein

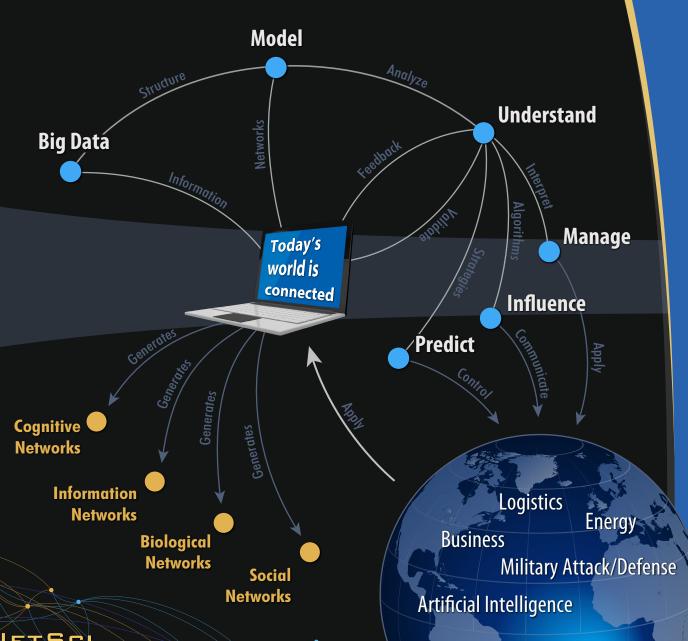
### **Enhancing Your Career**

As the world we live in transitions from the Information Age to the "age of connectedness," the NPS **Network Science Certificate** arms its graduates with the foundation to understand the underlying complexity of networks—the building blocks of connectedness—and enables them to succeed with greater insight into the world around us.

#### **A New Science**

#### Networks define the world around us!

This certificate provides an interdisciplinary education using mathematical methods for the analysis, understanding, and exploitation of complex networks, which include technological, biological, and social networks. Having a robust understanding of underlying mathematics is essential for accurate network modeling and data analysis needed to make predictions or influence and manage networks across sectors of industry and government. This innovative program provides students an opportunity to understand and apply a new science that will define the next generation.



WWW.NPS.EDU/MATH/NETSCI