# Dr. Alak Bandyopadhyay

Associate Professor, Computer Science

#### **Contact Information**

ETB 258, Arthur J. Bond Engineering Bldg. Alabama A & M University

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B.S. (Mechanical Engineering), National Inst. Of Tech, Durgapur, India,1985.

M.S. (Mechanical Engineering – Computational Fluid Dynamics) Indian Inst.

Of Technology, Kanpur, 1987

Ph.D. (Mechanical Engineering, Computational Fluid Dynamics) University of Minnesota, 1993.

21+ Graduate Courses in Computer Science, Syracuse University and Alabama A & M University

# **Teaching**

Intro to Programming - I & II

Intro to Logic Design

Switching Theory

Theory of Algorithms

Design and Analysis of Algorithms

Computational Statistics

Programming Languages

**Numerical Methods** 

## **Research Interests**

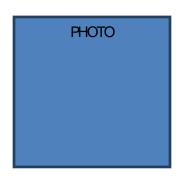
Algorithms and Numerical Methods

Computational Modeling and Simulations

Computational Fluid Dynamics and Applications

**Bioinformatics** 

Cyber Security



## **Active Funded Projects**

- 1. NIFA Capacity Building, co PI with Food Science Department, Alabama A & M.
- 2. Energy Harvesting Research, Northrop Grumman Research Grant, Collaborator with Physics Department, Alabama A & M University.

# Full list of publications

## **Journal Papers**

- G.K. Adil, V.R. Muppani, A. Bandyopadhyay, "A Review of Methodologies for Class-Based Storage Location Assignment in Warehouse", Int. J. of Adv. Operations Management, vol. 2, no. 3/4, 2010
- 2. Jian Fu, John H. Caulfield, and **Alak Bandyopadhyay**, "Pairing Mathematical Morphology with Artificial Color to extract targets from clutter", *J. of Image Science and Technology*, Vol.51, no. 2, Jan./Feb. 2007, pp 148-154.
- 3. **A.Bandyopadhyay**, B.V.Ramarao and S.Ramaswamy, "Transient Moisture Diffusion through Paperboard materials", *Colloids and Surfaces A, Physicochemical and Engineering Aspects*, vol.206, issues 1-3, July 2002, pp 455-467.
- 4. **A.Bandyopadhyay**, B.V.Ramarao and Eric C. Shih, "Transient Response of a Paper sheet subjected to a Traveling Thermal Pulse: Evolution of Temperature, Moisture and Pressure fields", *J. of Imaging Science and Technology*, Vol. 45, no. 6, November 2001, pp. 598-608.
- 5. **A. Bandyopadhyay**, H. Radhakrishnan, S.G.Chatterjee, and B.V.Ramarao, "Moisture Sorption Response of Paper subjected to Ramp Humidity Changes: Modeling and Experiments", J. of Industrial and Engineering Chemistry Research, vol. 39, no. 1, Jan 2000, pp 219-226.

#### **Conference Papers**

- 1. **Alak Bandyopadhyay** and Neema Sumari, "Design and Development of a Secure Internet based Protocol to Control a Remote Solar Tracker", *ASEE Annual Conference*, San Antonio (2012)
- 2. **A. Bandyopadhyay**, B. Hamill, N. Ramachandran, and A Majumdar, "Network Flow Simulation of Fluid Transients in Rocket Propulsion Systems", Proc., Joint Army, Navy, NASA, Air Force Modeling and Simulation Meeting, December 2011.

- 3. B. Dasgupta, V. Florinski, G. Zank, A. Bandyopadhyay, K. Avinash, and J. Heerikhuisen, "Heliopause Instabilities Driven by Plasma Neutral Interaction: Linear Analysis from Fluid Model", American Institute of Physics Conference Proc., 1366, 77, 2011.
- 4. Alak Bandyopadhyay

# **Professional Recognition/Awards**

- 1. University Gold Medalist for BS (Mechanical Engineering), 1985 from University of Burdwan (National Inst. Of Technology).
- 2. University Grant Commission, Government of India Research Fellowship, for MS study in Indian Institute of Technology, Kanpur, 1985-1987.
- 3. Research and Teaching Assistantship from University of Minnesota, 1988-1993.
- 4. NASA ESMD Faculty Fellowship, for developing Senior Design Course at Alabama A & M University, 2009-2010.

#### Other Activities

#### **Faculty Fellowship**

- 1. NASA Summer Faculty Fellowship, 2012, NASA MSFC
- 2. NASA Summer Faculty Fellowship, 2010, NASA MSFC
- 3. NASA Summer Faculty Fellowship 2006, 2007

## **Professional Membership**

- 1. Member IEEE Computer Society
- 2. Member ACM
- 3. Member AIAA
- 4. Member ASEE
- 5. Member Alabama Academy of Science