

**Tathagata Ghosh, Ph.D.**  
Assistant Professor  
Mining and Geological Engineering  
University of Alaska Fairbanks  
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#### **Areas of Interest:**

Computational Fluid Dynamics Applications in Mineral Processing, Numerical Modeling, Dry Separation, Advanced Physical Processing, Comminution, Population balance modeling, Process Simulation and Control, Coal Preparation, Fine Particle Processing, Gravity separation techniques, Flotation, Agglomeration, Advanced Beneficiation Technologies.

#### **Education:**

- **Ph. D., Mining Engineering**  
*University of Kentucky, Lexington, Kentucky, USA 2007 – 2013*
- **M.Sc. Mechanical Engineering**  
*AGH University of Science and Technology, Krakow, Poland, 2005-2007*
- **B.E., Mining Engineering**  
*Bengal Engineering and Science University, Howrah, India, 2000-2004*

#### **Selective Awards and Fellowships:**

Kentucky Mining Foundation Fellowship (Awarded 5 times, 2007-2012)  
National Science Seminar (District 3<sup>rd</sup> Murshidabad District, West Bengal, India - 1995-96 Academic Year)

#### **Selective Research Projects:**

- CFD Analysis Of An Air-Based Density Separator (CAST Project) – 2010 to 2013
- Beneficiation Of Fine Size Powder River Basin Coal (CAST Project) – 2010 to 2013
- Two-Stage Reflux Classifier Optimization (FLSmidth Ludowici) (2012)
- Dry Processing Technology Demonstration (Dept. of State Project) (US/India, 2009)
- Impact of coal cleaning on Power Plant Performance (ESKOM, South Africa) (2009)
- Dense Medium Cyclone Optimization (Weir Minerals) (USA) (2008)
- Non-explosive Rock Breaking (Poland) (2006-07)

#### **Selective Industrial Projects:**

- Dense Medium Cyclone circuit design and optimization (Alden Resources) (2012)
- Coal Processing Plant Expansion Project (Arcelor-Mittal) (2011)
- Reflux Classifier Project (Massey/ALFA and LUDOWICI) (2011)
- Dense Medium Cyclone Software Design (WEIR Minerals) (2008, 2012)
- NTPC (India) Open Pit Coal Mine Planning and ore-body modeling (2007)
- Disrumburu (Orissa, India) Iron Ore Mine Planning and Feasibility Project (2007)
- Screen Deck Installation Project (ISPAT Industries), Mumbai, India (2005)

#### **Pedagogy Experience:**

**MIN F313 - Introduction to Mineral Preparation**

**MIN F104 - Mining Safety & Operations Lab**

**MIN F484 - Surface Mining Methods II**

#### **Selective Work Experience:**

**Graduate Summer Intern:** Alden Resources LLC., Corbin, Kentucky (May 2012 – August 2012)

**Mining Engineer Consultant:** IMC-SRG Consulting (P) Ltd., Kolkata, India (March 2007 – August 2007)

**Visiting Faculty:** George Edcare, Kolkata, India (March 2007 - August 2007)

**Graduate Engineer Trainee:** Tega Industries Ltd., Kolkata, India (2004 - 2005)

#### Selective Publications:

- **“Performance Evaluation And Optimization Of A Fullscale Reflux Classifier”**, Tathagata Ghosh, D. Patil, R. Q. Honaker, M. Damous, F. Boaten, V. L. Davis and F. Stanley; CPSA (Coal Preparation Society of America) Journal, Summer 2012; Volume 11 – No. 2, pp. 24-33.
- **“Application of Air Table Technology for Cleaning Indian Coals”**, Nikhil Gupta, Robert Bratton, Gerald Luttrell, Tathagata Ghosh and Rick Honaker; Separation Technologies for Minerals, Coal, and Earth Resources, Edited by Courtney A. Young, Gerald H. Luttrell;; Publication date: January 31, 2012 | ISBN-10: 0873353390 | ISBN-13: 978-0873353397 – pp. -199 to 209.
- **“Coal mining in India – walking the path of mechanization and mass production”**, Tathagata Ghosh, Janusz Reś, N. C. Dey; Vth International Conference Mining Techniques TUR, 2007 (Krynica, Poland) — ISBN 83-915742-9-6. — pp. 51–65.

#### Selective Presentations:

- **“Scale and Numerical Modeling of an Air-Based Density Separator”**, Tathagata Ghosh, Mohammad Rezaee, R. Q. Honaker, Kozo Saito; Seventh International Symposium on Scale Modeling (ISSM-7), Hirosaki, Japan, August 6-9, 2013.
- **“Computational fluid dynamic modeling of an Air-Based Table Separator”**, Tathagata Ghosh, A. J. Salazar, R. Q. Honaker; SME Conference, Denver, USA – 2013.
- **“Correlation of a Numerical Model of a Air-Based Density Separator Using Experimental Data – Airflow Profile”**, Tathagata Ghosh, A. J. Salazar, R. Q. Honaker and K. Saito; SME Conference, Seattle, USA - 2012.
- **“Upgrading Powder River Basin Coal Using Dry, Density-Based Separator Technologies”**, Tathagata Ghosh, R. Q. Honaker, D. Patil and B.K. Parekh; SME Conference, Seattle, USA - 2012.

#### Professional Associations:

- Society for Mining, Metallurgy and Exploration
- Reviewer – **“International Journal of Coal Preparation and Utilization”**

Dated: 12th September, 2013

*Tathagata Ghosh*