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Education

PhD in Food Science and Technology - Chungnam National University, South Korea, 2007

MSc in Food Technology - Bangladesh Agricultural University, Bangladesh, 2004

BSc in Agricultural Engineering - Bangladesh Agricultural University, Bangladesh, 2002

Professional Experience

Assistant Professor, Department of Food and Nutrition, University of Wisconsin Stout-January 2017 – Present

Postdoctoral Fellow, University of Saskatchewan, Canada – September 2016 – December 2016

Post-Doctoral Research Associate, Cornell University, USA – July 2015 – July 2016

Food Processing consultant, Mitra Research and Consulting, Canada – April 2014 – June 2015

NSERC Visiting Postdoctoral Researcher, Agriculture and Agri-Food Canada – April 2011-March 2014

Postdoctoral Fellow, University of Saskatchewan, Canada - September 2008-March 2011

Postdoctoral Fellow, McGill University, Canada - September 2007 –August 2008

Teaching Courses

FN 123-Science of Food, FN 244-Farm to Fork, FN 350 /550-Unit Operations in Food Processing, FN 450 /650 -Food Engineering, FN 465/665-Food Product Development, FN 728- Introduction to Food and Nutritional Sciences Research, FN 729-Research Proposal for Food and Nutritional Sciences, FN 735- Problems in Food Science and Nutrition, FN 746-Food Innovations and FN 750-Food Packaging FN 770-Thesis-Food Science and Nutrition

Research Interest

- Extrusion in food processing
- Food Engineering/Processing/bioprocessing
- Drying of agricultural materials
- Thermal/non-thermal food processing
- Food product and non-food product development
- Extraction and isolation of bioactive compounds

Current Research Projects

- Optimization of extrusion process and product formulations of plant protein and rice flour extrudate products
- Hot air and microwave drying of locally grown agricultural crops
- Value added food product development (i.e. by-product-based cookies and protein fortified yogurt)

Funded Research Projects

- Optimization and drying kinetic modeling of hot-air, vacuum and microwave drying of locally grown high perishable vegetables (\$5,000.00), University of Wisconsin-Stout Discovery Center Research Fellow grant, 2019
- Optimization of extrusion process and product formulations of plant protein and rice flour extrudate products (\$7,500.00), 2017, University of Wisconsin- Stout FRI grant (Current project)
- Developing high protein nutritious cereal-like extruded Ready-to-Eat products (\$1000.00), 2017, Undergraduate student job project, University of Wisconsin- Stout
- Postdoctoral Fellowship, McGill University, the University of Saskatchewan and the Cornell University (\$164,300.00), 2007 -2011 and 2015
- NSERC Visiting Fellowship in a Canadian Government Laboratory (\$150,000.00), 2011-2014
- Optimization of functional compounds extraction of *Cuscuta reflexa* and *Cucurbita maxima* using supercritical fluid carbon dioxide, KRF (Korea Research Foundation, Govt. of South Korea) Scholarship for PhD (\$36,000.00), 2004-2007

Student Supervision

1. Mukesh Guragain, Hot Air Drying of Horseradish: Empirical Drying Kinetic Modeling and Physical Quality Characteristics of Dried Horseradish, Plan B Master's thesis, Spring 2018
2. Margaret Schultz, Physical and textural properties of Hot air-dried Horseradish (Undergraduate project), Spring 2018
3. Srikanth Manohar Pakki, Study of Physical Parameters of Food Materials using Hot Extrusion Method, Independent Study, Fall 2018
4. Binu Acharya, Process optimization and product formulation of protein rich single screw extrusion, Plan A Master's Thesis (current)

Refereed Journal Publications

1. Timalsina, P, Prajapati, R, Bhaktaraj, S, Shrestha, R, Shrestha, S and **Mitra, P**, 2019, Sweet potato chips development and optimization of chips processing variables, Open Agriculture (accepted)
2. Kuttiyatveetil, J.R., **Mitra, P.**, Goldin, D., Nickerson, M.T. and Tanaka, T. (2019), Recovery of residual nutrients from agri-food byproducts using a combination of solid-state fermentation and insect rearing. Int J Food Sci Technol. doi:10.1111/ijfs.14015
3. Wanasundara, J.P.D., McIntosh, T. C., Perera, S. P., Withana-Gamage, T.S., and **Mitra, P.** 2016. Canola/Rapeseed Protein-Functionality and Nutrition – A review, Oilseeds and fats, Crops and Lipids (OCL), 23(4), D407
4. Meda, V., **Mitra, P.**, Lee, J.H. and Chang, K.S. 2016. Optimization of microwave-vacuum drying parameters on the physical properties of dried Saskatoon berries. Open Agriculture, 1, 7-17.
5. Nagalakshmi, A., **Mitra, P.**, and Meda, V. 2014. Color, mechanical and microstructural properties of vacuum assisted microwave dried Saskatoon berries. International Journal of Food Properties, 17, 2142-2156.
6. **Mitra, P.**, Meda, V., and Green, R. 2013. Effect of Drying Techniques on the Retention of Antioxidant Activities of Saskatoon Berries. International Journal of Food Studies. 2(2), 224-237.
7. **Mitra, P.**, and Hill, G. A. 2012. Continuous Microbial Fuel Cell Using a Photoautotrophic Cathode and a Fermentative Anode. Canadian Journal of Chemical Engineering. 90 (4), 1006-1010.
8. Sasi, D., **Mitra, P.**, Viguera, A and Hill G. A. 2011. Growth kinetics and lipid production using *Chlorella vulgaris* in a circulating loop photobioreactor. Journal of Chemical Technology and Biotechnology. 86 (6), 875-880.
9. **Mitra, P.**, Yoo, D. S. and Chang, K.S. 2011. kaempferol extraction from *Cuscuta reflexa* using supercritical carbon dioxide and separation of kaempferol from the extracts. International Journal of Food Engineering. 7(4), 1-15.
10. **Mitra, P.**, Barman, P.C. and Chang, K.S. 2011. Coumarin Extraction from *Cuscuta reflexa* using Supercritical Fluid Carbon Dioxide and Development of an Artificial Neural Network Model to Predict the Coumarin Yield. Food and Bioprocess Technology. 4 (5), 737-744.
11. **Mitra, P.**, Ramaswamy, H.S. and Chang, K. S. 2009. Pumpkin (*Cucurbita maxima*) seed oil extraction using supercritical carbon dioxide and physicochemical properties of the oil, Journal of Food Engineering. 95, 208-213.
12. **Mitra, P** and Meda, V. 2009. Optimization of Microwave-vacuum Drying Parameters of Saskatoon Berries using Response Surface Methodology (RSM). Drying Technology. 27, 1089-1096.
13. **Mitra, P.**, and Chang, K.S. 2007. Optimization of Processing Parameters for Green Banana Chips and Packaging with Polyethylene Bags. Food Science and Biotechnology 16(6), 889-893.
14. **Mitra, P.**, Uddin, M. B., Kim E. M. and Chang, K.S. 2007. Processing of Yogurts Enriched with Mango, Papaya and Banana. Food Engineering Progress.11 (4), 261-270.

Conference Presentations

1. **Mitra, P** and Ramaswamy, HS, Extrusion of soy protein and corn flour blend formulations and developing an Artificial Neural Network (ANN) model to predict the extrusion processing variables on the physical properties of extrudates, IFT Annual Meeting, New Orleans, USA, June 2-5, 2019
2. **Mitra, P.**, Food Extrusion: A Thermal Cooking Process Used in Food Processing, Family and Consumers Sciences Education- WI DPI Child Care Conference, University of Wisconsin-stout, Menomonie, USA, September 28, 2018
3. Shah, A. S. and **Mitra, P.**, Wahab, S., Mehmod, Z. Güneş, N., and Syed Abdul Majeed Shah, S.A.M, effects of different chemical treatments with 1 methylcyclopropene (1-mcp), calcium chloride and salicylic acid on the physicochemical and sensory properties of peach fruits during cold storage, IFT 2018 Annual Meeting, Chicago, IL, USA, July 15-18, 2018
4. **Mitra, P** and Rizvi, SH Milk Protein Concentrate and Rice Flour Blend Extrudates using Supercritical Carbon Dioxide Extrusion: A New Dairy Nutrition Delivery Platform, IFT 2018 Annual Meeting, Chicago, IL, USA, July 15-18, 2018
5. **Mitra, P**, and Rizvi, S.H. Supercritical Carbon Dioxide Extrusion of Milk Protein Concentrate and Rice Flour Blend: A New Dairy Nutrition Delivery Platform, PepsiCo Journey through Science Day at the New York Academy of Science, November 14, 2016, New York, USA,
6. **Mitra, P**, McIntosh, T. C. and Wanasundara, J. Unique functionalities of napin protein fraction of canola: A comparative study, Interdisciplinary Engineering for Agriculture and Biosystems, Canadian Society of Bioengineering (CSBE). July 7-10 1, 2013, Saskatoon, Saskatchewan, Canada
7. **Mitra, P.** and Wanasundara, J. Canola Protein-based Thermoplastic Polymers, 104th AOCS Annual Meeting & Expo. April 28–May 1, 2013, Palais des congrès de Montréal, Montréal, Québec, Canada
8. **Mitra, P**, McIntosh, T. C. and Wanasundara, J. Processing Proteins from Canola, 104th AOCS Annual Meeting & Expo. April 28–May 1, 2013, Palais des congrès de Montréal, Montréal, Québec, Canada
9. **Mitra, P**, Hill, G. Bioelectricity Generation Constructing Photosynthetic Algae and Yeast based Continuous Flow Microbial Fuel Cell (MFC), Conference of the Agricultural Biorefinery Innovation Network (ABIN). January 9-11, 2011, Ivey Spencer Leadership Centre, London, Ontario, Canada.
10. **Mitra, P** and Hill, G. Enhanced photosynthetic growth, bio-oil and electricity production using *Chlorella vulgaris* and *Saccharomyces cerevisiae*. International Conference CO₂ Summit: Technology and Opportunity. June 6 to June 10, 2010, Vail Marriott Mountain Resort & Spa Vail, Colorado, USA.
11. **Mitra, P**, Viguera, A. and Hill, G. Enhanced algae growth and bio-oil production in a novel, Circulating Loop Photobioreactor (CLP). Conference of the Agricultural Biorefinery Innovation Network (ABIN) for Green Energy, Fuels & Chemicals. March 14 to March 16, 2010, Ivey Spencer Leadership Centre, London, Ontario, Canada.

12. **Mitra, P** and Meda, V. Optimization of Drying Parameters of saskatoon Berries (*Amelanchieralnifolia*) using a Combined Microwave and Vacuum Method. CIGR International Symposium on Food Processing, Monitoring Technology in Bioprocesses and Food Quality Management (5th CIGR Section VI International Symposium). Aug 31 to September 2, 2009, Potsdam, Germany.
13. **Mitra, P.** and Chang, K.S. Isolation and Optimization of Kaempferol Extraction from *Cuscutareflexa* using Supercritical Fluid Carbon Dioxide. Institute of Food Technologists (IFT) annual meeting. June 28 to July 1, 2008. Ernest N. Morial Conventional Center, New Orleans, USA.
14. **Mitra, P.** and Chang, K.S. Artificial Neural Network Prediction model of Coumarin Extraction from *Cuscuta reflexa* using Supercritical Fluid Carbon Dioxide. International Congress on Engineering and Food, ICEF 10. April 20 to April 24, 2008, Viña del Mar, Chile.
15. **Mitra, P.**, Yoo, D. S. and Chang, K.S. Separation and Quantitative Optimization of Kaempferol Extraction from *Cuscuta reflexa* by Supercritical Fluid Carbon Dioxide. Proceedings of 74th annual conference on Social Obligation of Food Science and Technology, Korean Society of Food Science and Technology. June 22 to June24, 2007, BEXCO, Busan, Republic of Korea
16. **Mitra, P.** and Chang, K.S. Supercritical Fluid Carbon Dioxide Extraction of Coumarin from *Cuscuta reflexa*: Artificial Neural Network Prediction Model Approach. Proceedings of 74th annual conference on Social Obligation of Food Science and Technology, Korean Society of Food Science and Technology. June 22 to June 24, 2007, BEXCO, Busan, Republic of Korea
17. **Mitra, P.**, Kim, E. M. and Chang, K. S. Optimization of Supercritical Fluid Carbon Dioxide Extraction Conditions for *Cucurbita maxima* Seed Oils & Physicochemical Characterization. Proceedings of bi-annual meeting of the Korean Society of Food Engineering. April 26, 2007, COEX, Seoul, Korea.
18. **Mitra, P.** and Chang, K.S. Preparation and Sensory Evaluation of Fruit Enriched Yogurt. Proceedings of biannual meeting of the Korean Society of Food Engineering. November 16, 2006, COEX, Seoul, Republic of Korea.

Awards/Scholarships

- University of Wisconsin- Stout Discovery Center Research Fellow, 2019-2020
- PEPSICO 50 Emerging /exceptional professionals award, New York Academy of Science and PEPSICO, 2016
- KRF (Korea Research Foundation), Government of South Korea, 2004

Academic Committee Service

- Member, Educational Activities Committee, University of Wisconsin-Stout, USA, December 2017 – Present
- External PhD Thesis Reviewer, The University of Agriculture, Peshawar, Pakistan, June 2017

Editorial/Journal Activities/Services

- **Editor:** Open Agriculture, since 2015
- **Editorial Board Member:** International J. of Agriculture and Food Research, Food Science & Nutrition Technology (FSNT) International Journal of Food Sciences and Research and Recent Advancement in Food Science and Nutrition Research, since 2013
- **Reviewer:** Food and Bioprocess Technology, Journal of Agriculture and Food Chemistry, Molecules, Journal of Texture Studies, Journal of Food Science, Journal of the American Oil Chemists' Society and Journal of Food Processing and Preservation, since 2008

Professional Affiliations

- Member, Institute of Food Technologists (IFT), since 2017
- Professional Engineer (P. Eng.), The Association of Professional Engineers and Geoscientists in Saskatchewan (APEGS), Canada, since 2014
- Member, International Association of Engineers (IAENG), Hong Kong, since 2013

Accreditation

- **Online Teaching Short Course**, University of Wisconsin-Stout, 2018
- **Postdoctoral Leadership Development Certificate**, Cornell University, USA, 2016
- **Course Design Certificate**, Centre for Teaching Excellence, Cornell University, 2016
- **GET SET (Graduate students, Future Educator and Teaching Assistants Pursuing Scholarship Enhance Teaching) Teaching Certificate**, Centre for Teaching Excellence, Cornell University, 2015 & 2016
- **HACCP Basics for Processors and Manufacturers (NEHA HACCP Manager)**, National Environmental Health Association (NEHA), USA (accredited by International HACCP Alliance), 2014
- **Administration, Communication & Office Management**, Graduate Training Institute, Bangladesh Agricultural University, Bangladesh, 2004
- **Training of Trainers**, Graduate Training Institute, Bangladesh Agricultural University, Bangladesh, 2004