

## CURRICULUM VITAE

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**Dr Shek Md. Atiqure Rahman, IMechE, CEng (UK)**

**Assistant Professor**, Sharjah University, Sharjah, UAE

**Date of Birth:** 18<sup>th</sup> December 1972

**Nationality:** Bangladeshi

**Sex:** Male

**Marital status:** Married

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### **GOAL**

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*To work as a faculty in an educational institute that utilizes my academic and technical background, computational ability, design and analytical skill.*

### **1. EDUCATION**

**1.1 Doctor of Philosophy (Research Scholar)** January 2005 – June 2009.  
Energy and Bio-thermal Systems, Mechanical Engineering Department, National University of Singapore (NUS).

**Title:** Study of a new atmospheric freeze drying system incorporating a vortex tube and multi-mode heat input

**1.2 Master of Engineering (Research Scholar)** Aug 2001 - July 2003  
Energy and Bio-thermal Systems (Thermodynamics), Mechanical Engineering Department, National University of Singapore (NUS) National University of Singapore, Singapore (NUS)

**Title:** Performance evaluation of a solar assisted heat pump drying system

**1.3 Bachelor of Science in Mechanical Engineering** Jan 1992- Sep 1997  
Bangladesh University of Engineering & Technology (BUET)  
Research Topic: Design and fabrication of a sand blaster.  
Result: 1st class

### **PROFESSIONAL AFFILIATION**

- CEng status/MIMechE from IMechE July 2012 - To date
- International Association of Engineers (Member) July 2012- To date
- The Institution of Engineers Bangladesh Nov 1998- To date

### **2. SCHOLARSHIP/ AWARD**

#### **AWARD**

- A senior designed project won the first price in the AURUK Student Research Competition held in American University of Ras Al Khaimah, 16 January, 2017, UAE.
- A senior designed project won the first price in the third Undergraduate Student Research Competition ( UGRsearch Competition) out of 225 research project from 22 University in UAE; held in Abu Dhabi University on 21<sup>st</sup> May 2015.
- Won the first place among 225 projects that were developed and by more than 640 Universities and high school students in Think Science Research Competition, Abu Dhabi, 2016, UAE.

- Won the first place out of more than 150 Undergrads research project in 4<sup>th</sup> International Conference on Electric Power and Energy Conversion System, American University of Sharjah, UAE, 2016
- Won the best final year project award in MONASH University, Sunway Campus , Malaysia, 2009.
- Won the Taylor & Francis Best Poster Award for the novel idea in AFD system sponsored by Taylor & Francis, USA. in 5<sup>th</sup> Asia-Pacific Drying Conference, HKUST, Hong Kong, August 13-15, 2007
- An undergrad project involved as mentor, won the Mondialogo Engineering Award over 809 proposals from 89 countries for the design of low cost drying system, sponsored by Daimler and UNESCO,. Mumbi, India, December, 2007.

### **SCHOLARSHIP**

- Graduate Scholarship for M.Engg. National University of Singapore, Singapore.  
Aug 2001 - July 2003
- Graduate Scholarship for PhD. National University of Singapore, Singapore.  
Jan 2005 - Jan 2009
- Undergrad Merit Scholarship, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh.  
July 1992 - Sep 1997
- Merit Scholarship during higher secondary school certificate, Camilla board, Chittagong, Bangladesh.  
1988-1990.
- Merit Scholarship during Secondary school certificate, Camilla board, Chittagong, Bangladesh.  
1986-1988.

### **3. RESEARCH ACTIVITIES**

**Research Interest:** Heat and mass transfer, Drying, Freeze drying, Atmospheric freeze drying, Solar energy, Renewable energy, Computational fluid dynamics.

#### **3.1 Research Grant**

- Received Collaborative Research grant (AED 80,000) from UoS on ' Feasibility and life cycle analysis of green solar thermal energy storage system application of cooling and or heating in United Arab Emirates' Principle Investigator, 2020 (Approved)
- Secured an internal grant (RM25,000) to do research in the area of "Atmospheric freeze drying". Under EGT research strength, Monash University, Sunway Campus
- Received Collaborative Research grant (AED 80,000) from UoS on 'Study on a novel approach of atmospheric freeze drying system using vortex tube' as Principle investigator, 2016
- Received Targeted Research grant on 'Numerical and experimental study of an innovative solar absorber - parabolic trough collectors case' as a internal Co-investigator investigator, in UoS, 2017
- Applied Targeted Research grant on 'Performance enhancement of evacuated tube solar collector using different nanomaterials based fluid, as a internal Co-investigator investigator in UoS, 2018
- Received Collaborative Research grant (AED 80,000) from UoS on 'Numerical and experimental study of an innovative solar absorber - parabolic trough collectors case' as a internal Co-investigator investigator, 2018.

#### **3.2 Research collaboration**

- Actively involved in research collaboration with internal and external expatriate around the globe

#### **3.3 Reviewed paper**

- Reviewed paper for Drying Technology

- Served as a referee for Central European Journal of Engineering.
- Reviewed paper for Applied Energy
- Reviewed paper for Journal of Energy Conservation and Management
- Reviewed paper for Journal of Food Process and Preservation
- Reviewed paper for International Journal of Hydrogen Energy
- Reviewed paper for 7<sup>th</sup> Aisa-Pacific Drying Conference (ADC2011, Tianjin, China)
- Reviewed paper for Int Conference on Sustainable and Renewable Energy Engineering

### 3.4. Internal examiner of PhD Thesis

- Served as an internal examiner of two PhD thesis, Monash University, Sunway Campus

### Mentor

**Project title:** A solar pond fruit drying system-Mondialogo Engineering Award competition project.

**Level:** Undergraduate; Academic Year: 2006/2007

**Mentor:** S.M. Atiqure Rahman

*Above project Won the Mondialogo Engineering Award over 809 proposals from 89 countries for the design of low cost drying system sponsored by Daimler and UNESCO, Mumbi, India, December, 2007.*

## 4. INVITED SPEAKER/ SYMPOSIUM/CONFERENCE/PAPER PRESENTATION/POSTER PRESENTATION

### 4.1 Paper Presented in Symposiums/Conferences

1. **Shek Rahman**, Zafar Saida, Salah Issaa. Performance evaluation and life cycle analysis of new solar thermal absorption air conditioning system. The 5th International Conference on Renewable Energy and Development (ICRED 2019), Okinawa, Japan, September 20-23, 2019.
2. Zafar Said, **Shek Atiqure Rahman**, Amnah Abdelrahim Alzarouni, Salah Issa. Performance evaluation of an evacuated tube solar collector using Al<sub>2</sub>O<sub>3</sub> based nanofluids, The 22nd Conference on Process Integration, Modelling and Optimization for Energy Saving and Pollution Reduction (PRES'19), Agios Nikolaos, Crete, Greece, 20–23 October, 2019.
3. S.Y. Issa, F.M. Alyassi, H.K. Alshamsi, A.M. Alowais, S. Akhor, and **S.M.A. Rahman**, A novel hybrid greenhouse for plantation in uae climate, Proceedings of SEEP2019, 18-21 November 2019, UOS, Sharjah, UAE,
4. **S.M.A.Rahman**, Alchikh Nirmin,, Saffarini Reem, Qasem Nareman, Design and experimental investigation of a solar thermal absorption air conditioning system, The 2017 International conference on green energy and application ( ICGEA 2017), Nanyang Technology University, Singapore, March 25-27, 2017 ( Accepted)
5. **S.M.A.Rahman**, A. Sara, R. Asmaa, and S. Rasha. Design and modeling of portable solar thermoelectric refrigerator, Design and Experimental Investigation of Portable Solar Thermoelectric Refrigerator, GCREEDER 2016, Amman-Jordan, April 4th – 6th 2016.
6. **S.M.A.Rahman**, S. Akhor, A. Hachicha, F. M. Alyassi, H. K. Alshamsi, A. M. Alowais. Smart Greenhouse for plantation in UAE climate 9th International Conference on Sustainable Energy & Environmental Protection, Talas, Kayseri, Turkey, September 22-25, 2016 (Submitted)
7. **S.M.A.Rahman and M.F.M. Ibrahim**, Study of a new adiabale coating material for fruit and vegetable products prior to hot air drying method, 7th Asia-Pacific Drying Conference (ADC 2011) Tianjin, China, 18-20 September 2011.
8. **S.M.A.Rahman**, Chait, Y, and Hawlader, MNA. Drying kinetics of cocoa beans undergoing vacuum, Drying. International Congress on Food Engineering and Technology (IFET2012) March 26-28, 2012; Bangkok, Thailand.
9. M.A. Ismail, Ebad Ur Rab and **S.M.A. Rahman**, Effect of freeze-drying process parameters on

the drying kinetics and quality of averrhoa carambola (star fruit) 7th Asia-Pacific Drying Conference (ADC 2011) Tianjin, China, 18-20 September 2011.

10. **S.M.A. Rahman** and A. S. Mujumdar. A Vortex Tube Assisted Atmospheric Freeze Drying System Using Multimode Heat input. Proceedings of Forth Nordic Drying Conference, 17-19 June 2009, Reykjavik, Iceland , 2009
11. **S.M.A. Rahman** and A. S. Mujumdar. Drying at subzero temperature with vortex tube and different mode of heat transfer – A new alternatives for high quality food products System Using Multimode Heat input. The 6<sup>th</sup> Asia-Pacific Drying Conference (ADC2009) October 19-21, 2009, Bangkok, Thailand
12. **S.M.A. Rahman** and A. S. Mujumdar. Vortex tube-assisted Atmospheric Freeze Drying of Osmotically Pretreated Biological Materials. IDS 08, Mumbi, India, Feb. 2008.
13. Hawlader M.N.A., **S. M. A. Rahman** and K.A.Jahangeer. Optimization and economic analysis of a solar assisted heat pump drying system. Proceedings of the 11<sup>th</sup> International Energy Conference & Exhibition Stavenger, Norway-2006.
14. **S.M.A. Rahman** and M.N.A. Hawlader, Performance of evaporator collector and air collector in a solar assisted heat pump dryer, Proceedings of International Solar Energy Society (ISES), pp-p3 8 , Gutenberg, Sweden, 2003
15. M. N. A. Hawlader, S. K. Chou, K. A. Jahangeer and **S. M. A. Rahman** A Solar Assisted Heat-Pump Dryer and Water Heater, International symposium & exhibition on renewable energy, Kuala Lumpur, Malaysia-2003.pp:695-704.
16. **S. M. A. Rahman**, M. N. A. Hawlader and K. A. Jahangeer. Performance Evaluation of a Solar Assisted Heat Pump Drying System. 2<sup>nd</sup> BSME-ASME International Conference on Thermal Engineering. Dhaka-2006. pp:261-266.
17. **S.M.A.Rahman and M.T.Islam**. Study of sand blaster machine. Proceedings of the Sixth Annual Paper meet and International conference. Dhaka-2000. pp: 366-369.

#### **4.2 Poster in Symposiums/Conferences**

1. **S.M.A. Rahman**, Tan Heong Kim and A. S. Mujumdar. An experimental study on atmospheric freeze drying system using a vortex tube and multimode heat input. ADC07, Hong King, August 2007, pp: 877-882.

*Above paper Won the Taylor & Francis Best Poster Award for the novel idea in AFD system sponsored by Taylor & Francis, USA. in 5<sup>th</sup> Asia-Pacific Drying Conference, HKUST, Hong Kong, August 13-15, 2007.*

#### **5. BOOK AUTHOR:**

1. **S.M.A.Rahman**. “ **A novel approach on atmospheric freeze drying**” Lambert Academic Publishing (LAP), Theodor-Heuss-Ring 26, 50668 Koln, Germany, ISBN-978-3-8383-1605-5, 2009.
2. **S.M.A.Rahman**. “ **Solar assisted heat pump drying system**” Lambert Academic Publishing (LAP), Theodor-Heuss-Ring 26, 50668 Koln, Germany, ISBN-978-3-8383-5785-0, 2010.

#### **6. BOOK CHAPTER:**

1. **S.M.A.Rahman**. Study of an Integrated Atmospheric Freeze Drying and Hot air Drying System Using a Vortex Chiller. In Processing and Drying of Foods, Vegetables and Fruits. Ed. Hii, C.L, Jangam, S.V., Chiang,C.L., Mujumdar, A.S. 2013, ISBN-978-981-07-7312-0, Published in Singapore
2. **S.M.A. Rahman** and A. S. Mujumdar. Atmospheric Freeze Drying. Progress in Food Preservation. Rajeev Bhat, Karim AA and Gopinadhan Paliyath., Ed. Blackwell Publishers, Oxford UK, pp 143-160, ISBN- 9780470655856; 2012.
3. **S.M.A. Rahman** and A. S. Mujumdar. Vacuum and Atmospheric Freeze drying. Practical guide of industrial drying, Mujumdar, A.S., Ed. Hyderabad, India, pp 181-197, ISBN-10: 81-907371-3-9. 2008.

## **7. PUBLISHED PAPER IN REFERRED JOURNAL**

- 01 **S.M.A.Rahman**, Ahmed Amine Hachicha, Chaouki Ghenail, R. Saidur, Zafar Said, Performance and life cycle analysis of a novel portable solar thermoelectric refrigerator, **Case studies in thermal engineering**, **19**, 100599, 2020.(Q1; IF-4.01)
- 02 Hegazy Rezk, **S.M. Atiqure Rahman**, Ahmed M. Nassef, Z. Said. Enhancement of cocoa beans drying rate through fuzzy modelling and particle swarm optimization. **IEEE Access**. Vol. **8**, 45964-45973, 2020. (Q1;IF-4.09)
- 03 Mamdouh El Haj Assad, Ehab Bani-Hanib , Israa Al-Sawaftaa , Salah Issa , Abir Hmidac , Madhu Guptad, **Rahman S.M. Atiqure** , Khaoula Hidouri. Applications of Nanotechnology in Membrane Distillation: A Review Study, **Desalination and Water Treatment**. **192**, pp 61-77. 2020 (Q2; IF-1.32)
- 04 **Shek Rahman** , Ahmed Nassef , Mujahed Aldhaifallah, Muhammad Ali Abdelkareem , Hegazy Rezk, The Effect of New Coating on Drying Performance of Fruits and Vegetables Products- Experimental Investigation and Artificial Neural Network Modelling, **Foods** **9**, **308**, 2020 (Q2; IF-4.09)
- 05 Ahmed Amine Hachicha , Zafar Said, **S.M.A.Rahman**, Eman Al-Sarairah, On the thermal and thermodynamic analysis of parabolic trough collector technology using industrial-grade MWCNT based nanofluid, **Renewable Energy**, (Accepted), 2020. (Q1; IF-6.27)
- 06 **S.M. Atiqure Rahman**, Ahmed M. Nassef, Hegazy Rezk, Mamdouh El Haj Assad, Md Enamul Hoque, Experimental investigation of vacuum drying process of cocoa beans and modelling the drying process by a fuzzy model and several semi-empirical models, **Heat and mass transfer (Submitted after third revision)**, 2020. (Q2; IF-1.867)
- 07 Muhammad Ali Abdelkareem, Najrul Hussain; Hussain Alawadhi; **S.M.A. Rahman**, Facile synthesis of novel Cu<sub>2</sub>O-g-C<sub>3</sub>N<sub>4</sub>/Vulcan Carbon composite as anode material with enhanced electrochemical performances in urea fuel cell. **Journal of Electrochimica Acta. ( Submitted) 2020**
- 08 Z. Said, **S.M.A. Rahman**, M. El Haj Assad, Abdul Hai Alam, Life cycle analysis and heat transfer enhancement of a Shell-and-Tube Heat Exchanger using stable CuO based nanofluid, **Sustainable Energy Technologies and Assessments**, **31**, 306-317.2019 (Q1; IF-3.427)
- 09 Mamdouh el haj assad, Ehab bani han, Israa al-sawafta, Ahmad sedaghat, M. Alshabi, **Shek Rahman**, Thermal analysis of end pumped fiber lasers subjected to jacket fluid cooling. **Journal of Thermal Science**, **00**, 311-311, 2019 (Q2; IF-1.972)
- 10 **Shek Rahman** , Salah Issa, Zafar Said, Mamdouh El Haj Assad, Rashed Zadeh, Yazan Barani, Performance enhancement of a solar powered air conditioning system using passive techniques and SWCNT /R-407c nanorefrigerant, **Case studies in thermal engineering**, **16** , 100565, 2019, (Q1; IF-4.01)
- 11 Aamir Mehmood, Adeel Waqas, Zafar Said, **Shek Mohammad Atiqure Rahman**, Muhammad Akram, Performance Evaluation of Solar Water Heating System with Heat Pipe Evacuated Tubes Provided with Natural Gas Backup. **Energy Report**, **5**, 1432–1444, 2019 (Q1; IF-3.595)
- 12 M Enamul Hoque, A. Maryanne Peiris, **S. M. Atiqure Rahman**, M. Abdul Wahab. New Generation Antibacterial Nanofibrous Membrane For Potential Water Filtration. **Current Analytical Chemistry**. **14(3)**, pp 278-284, 2018. (IF-1.307)
- 13 M. Barma, R.Saidur, **S.M.A.Rahman** , A. Allouhi, B. Akash. A Review on Boilers Energy Use, Energy Savings And Emissions Reductions, **Renewable and Sustainable Energy Reviews**. **79**, pp-970-983.2017 (Q1; IF-9.12)
- 14 **S.M.A. Rahman**, M.E. Houqe, R. Saidur, M.M. Rahman. Effect of Osmotic Pretreatment on Biological Products In A Novel Vortex Tube Assisted Atmospheric Freeze-Drying System. **Journal of Food Process Engineering**, **40(3)** pp-1-11, 2017. (IF-1.703)
- 15 **S.M.A.Rahman**, A. Sara, R. Asmaa, and S. Rasha. Design and Experimental Investigation of Portable Solar Thermoelectric Refrigerator. **Int. J. of Thermal & Environmental Engineering**. **Volume 13, No. 1**, pp 33-39 (2017)
16. M. Barma, R.Saidur, **S.M.A.Rahman** , A. Allouhi, B. Akash. A Review on Boilers Energy Use, Energy Savings And Emissions Reductions, **Renewable and Sustainable Energy**

*Reviews*.79, pp-970-983.2017.

17. **S.M.A. Rahman**, M.E. Houqe, R. Saidur, M.M. Rahman. Effect of Osmotic Pretreatment on Biological Products In A Novel Vortex Tube Assisted Atmospheric Freeze-Drying System. *Journal of Food Process Engineering*, 40(3) pp-1-11, 2017.
18. **S.M.A.Rahman**, R. Saidur A Novel Atmospheric Freeze Dryer Using Simultaneous Application of Subzero and Hot Air Streams Using a Vortex Chiller. *Drying Technology*,34(12), pp 1406- 1413, 2016.
19. **Atiqur Rahman SM**, Enamul Hoque M, Rahman S and Hasanuzzaman M, Osmotic Dehydration of Pumpkin Using Response Surface Methodology - Influences of Operating Conditions on Water Loss and Solute Gain, *Bioprocessing & Biotechniques*, 5 (5), 1-5, 2015
20. G. Pirasteh R.Saidur, **S.M.A.Rahman** , N.A.Rahim, A review on development of solar drying applications, 31(2014)133–148, *Renewable and Sustainable Energy Reviews*.
21. M. M. Rahman, Saad Mekhilef, R. Saidur, A.G.M. Mustayen Billah & **S.M.A. Rahman**, Mathematical Modelling and Experimental Validation of Solar Drying of Mushroom 12(7), (2014), *International Journal of Green Energy*
22. **S.M.A.Rahman**, R. Saidur and Hawlader M.N.A. An economic optimization of evaporator and air collector area in a solar assisted heat pump drying system. 76 (2013) 377–384. *Journal of Energy Conservation and Management*.
23. **S.M.A. Rahman** and A. S. Mujumdar. Aerodynamic and thermal characteristics of a Maxwell type vortex tube. *Central European Journal of Engineering*, 1(4), 369-379. 2011.
24. **S. M. A. Rahman**. “Thesis summary: Study of a new atmospheric freeze drying system incorporating a vortex tube and multimode heat input”, *Drying Technology*, 27, 1156-1157. 2009.
25. **S.M.A.Rahman** and A. S. Mujumdar. ‘A Novel Atmospheric Freeze Drying System Using a Vortex Tube and Multimode Heat Supply’. *Int. J. Postharvest Innovation and Technology* 2008, 1(3), 249-266.
26. **S.M.A.Rahman**, and A. S. Mujumdar. A Novel Atmospheric Freeze Drying System in a Vibro-fluidized bed dryer couple with adsorbent and multimode heat input. *Drying Technology* 2008, 26, 393-403. (Taylor and Francis Ltd, UK)
25. **S.M.A.Rahman**, and A. S. Mujumdar. Effect of Combined Radiant and Conductive Vacuum Drying with Application of Vibration. *Journal of Food Engineering-2008*, 4, 2, Art 12. (The Berkeley Electronic Press, USA)
26. **S.M.A.Rahman**, and A. S. Mujumdar. Sublimation of ice in a novel atmospheric freeze drying system using vortex tube and multimode heat input: simulation and experiment. *Journal of Chemical engineering-2008*, 3, 408-416.
27. Hawlader M.N.A, **S.M.A.Rahman**, K.A. Jahangeer. Performance of evaporator-collector and air collector. *Journal of Energy Conservation and Management-2008*; vol.49; pp 1612-1619.(Elsevier Science Ltd, Oxford, UK)
28. **S.M.A.Rahman**, M.R. Islam and A. S. Mujumdar. A Study Of Coupled Heat And Mass Transfer Through a Composite Food Product During Convective Drying. *Drying Technology* 2007, 25, 1359-1368. (Taylor and Francis Ltd, UK)
29. **S.M.A.Rahman** and A. S. Mujumdar. Effect of osmotic treatment with concentrated sugar and salt solutions on kinetics and color in vacuum contact drying. *Journal of food process and preservation* 2007, 31, 671-687. (Blackwell Publishing, USA)
30. Hawlader M.N.A, S.K. Chow, K.A. Jahangeer, **S.M.A.Rahman**, Eugene Lou K.W. A simulation and experiment with a solar assisted heat pump dryer and water heater. *Applied Energy-2003*; vol.74; pp 185-193. (Elsevier Science Ltd, Oxford, UK)

## **8. TEACHING EXPERIENCE**

### **SUBJECTS ABLE TO TEACH**

- (1) Thermodynamics (Basic and Advance); (2) Thermo-fluid; (3) Heat Transfer (4) Refrigeration and Air-conditioning; (5) Dynamics (6) Engineering Mechanics; (7) Energy

Engineering (8) Solar energy; (9) Passive Solar Building (10) Introduction to Science and Engineering Technology

*Note: Able to teach other courses and develops new courses.*

### 8.1 LECTURER

November 1998- July 2003

Chittagong University of Engineering and Technology, Chittagong , Bangladesh.

#### **Responsibilities:**

Teaching following undergraduate subjects: Production process, Engineering Thermodynamics, and Mechanical Engineering Drawing.

Design and conduct laboratory work on Strength of Material, Heat Transfer, Fluid Mechanics & Machinery and Supervise research work of final year undergraduate students.

### 8.2 ASSISTANT PROFESSOR

July 2003- January 2005

*(On leave from January 2005 to 2009 for perusing PhD)*

Chittagong University of Engineering and Technology, Chittagong, Bangladesh.

#### **Responsibilities:**

Teaching following undergraduate subjects: Solar energy ,Basic Thermodynamics, Heat Transfer, Theory of machines ,Thermo fluid , Production Process

#### **Laboratories**

Design and conduct laboratory work on Strength of Material, Heat Transfer, Thermodynamics, Fluid Mechanics, and Fluid Machinery.

#### **Supervision of Research Students**

**Supervision of Final Year Students: Couple of final year projects have been supervised and completed successfully.**

### 8.3 GRADUATE TUTOR AND LAB ASSISTANT

July 2005 –July2008 (During pursuing PhD)

July 2001-July2003; (During pursuing M.Engg)

Energy and Bio-thermal Systems (Thermodynamics), Mechanical Engineering Department, National University of Singapore (NUS).

#### **Responsibilities:**

#### **Teaching Activities**

Taught the Following Modules:

- **Engineering Thermodynamics (ME 2121, Undergrade Level, NUS ) (Tutorial)**  
Semester 2, 2006/2007,2005/2006 and 2004/2005
- **Performance evaluation of Air conditioning system (ME 1121, Undergraduate Level and Bachelor of Technology Level, NUS) (Laboratory)**  
Semester 2, 2006/2007, 2005/2006, 2004/2005, 2001/2002 and 2000/2001.
- **Engineering Mathematics (ME 2121 Bachelor of Technology Level, NUS) (Tutorial)**  
Semester 2, 2007/2008

**Co-advisor of four research projects of final year students, NUS.**

#### **Mentor**

**Project title:** A solar pond fruit drying system-Mondialogo Engineering Award competition project.

**Level:** Undergraduate; Academic Year: 2006/2007

**Mentor: S.M. Atiqure Rahman**

**Others:**

*Designed and provided the list of all equipment's as well as name of vendors to build up a new design lab on drying project for undergrad students under the department of Engineering Science Program in NUS as per their request.*

**8.4 LECTURER**

January 2009- 2011 August

Monash University Sunway Campus, Malaysia

**Teaching Activities:** Taught the following courses: Dynamics-1, Thermodynamics and heat transfer; Thermodynamics; Thermodynamics and heat transfer; Thermo-fluid;

**8.5 ASSISTANT PROFESSOR**

**September 2012- Todate**

Sharjah University, Sharjah, UAE

**Responsibilities:**

- The preparation and delivery of lectures and seminars;
  - Initiation and development of subject material;
- Acting as subject coordinators;
- Conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions;
- Supervision of the program of study of honours students or of postgraduate students engaged in course work;
- Supervision of major honours or postgraduate research projects;
- Conduct of research;
- Involvement in professional activity;
- Development of course material with appropriate advice from and support of more senior staff;
- Marking and assessment;
- Consultation with students;
- A range of administrative functions the majority of which are connected with the subjects in which the academic teaches; and

**Teaching Responsibility:**

- 1) Thermodynamics 2) Static dynamics 3) Heat Transfer 4) Passive solar building 5) Introduction to science and energy 6) Heat Transfer lab 7) Fluid Mechanics Lab

**9. Leadership role**

- Member of college Student disciplinary committee at University Sharjah
- Member of college Task Stream committee at University Sharjah
- Chair of college community service committee
- Chair of a Specially group committee and member of other group committee
- Served as a member of peer observation committee
- Member of Editorial board, Journal of Trends in Renewable Energy
- Chair of research committee in Sustainable and Renewable Energy Engineering (SREE) at Sharjah University
- Chair of grade review committee in Sustainable and Renewable Energy Engineering (SREE) at Sharjah University
- Member of research committee in college of Engineering at Sharjah University



- Member of research center in Sharjah University 2012
- Member of Outreach and communication in college of Engineering at Sharjah University
- Coordinator of course file documentation in SREE at Sharjah University
- Chaired a session in 7<sup>th</sup> Asia Pacific Drying Conference, September 17-21, 2011, Tianjin China
- Worked as a discipline representative member in Research committee in Monash University.
- Worked as a discipline representative member in laboratory committee in Monash University.
- Involved as a team member in a Educational Research Strength Project entitled “ Virtual Interface Technology adaption Lab (VITAL)’in Monash University
- Actively involved in symposium organizing committee on “Energy and Green Technology – Hydrogen and Fuel cell” in Monash 24<sup>th</sup> of November, 2010 in Monash University

## **10. SERVICE FOR UNIVERSITY**

- Student advisor in SREE at Sharjah University
- Actively involved in the accreditation process for the discipline of Mechanical Engineering at Monash University.
- **Marketing Events:**  
Assisted in the activities of student admission and participated in open day and other forums in apprising the prospective students about the courses offered.

## **11. TRAINING**

- Participated in EDUCATE 2010 “Transformation in Teaching and learning in higher Education A paradigm shift” Kuala Lumpur Malaysia.
- Training on ‘Teaching at Monash”, Monash University, Sunway, Malaysia, 2009.
- Research Supervisor Accreditation program, Monash University, Sunway, Malaysia, 2009.
- Regional workshop on drying technology, Ho Chi Ming City, Viet Nam. Organized by Asian foundation, University of agriculture and forestry, Viet Nam, 2002.
- Workshop on Quality of steel, Chittagong, Bangladesh. Organized by Bangladesh society of mechanical engineers, Bangladesh Institute of Technology, Chittagong, Bangladesh, 2003.
- Industrial Training in Chittagong Dry Dock Limited in Chittagong, Bangladesh.

## **12. COMPUTER SKILL**

- MATLAB, FLUENT, Microsoft FORTRAN
- Solid Works, AutoCAD
- Microsoft office (Word, Excel, Power point)
- Various Internet utilities and applications

## **13. Industrial Experience**

**ASSISTANT ENGINEER (AUTO MOBILE)**      May 1998 to November 1998  
Coca Cola, Company Ltd. Alekhachar, Camilla, Bangladesh.

### **Responsibilities:**

Performed overhauling and maintenance of the vehicles. Development and modification of systems. Defined problems and provided recommendations.

## **14. LANGUAGE**

English, Arabic (partial), Bengali, Malay(Partial), Urdu (partial)

## **15. REFERENCE**

1. Professor Arun S. Mujumdar  
PhD Supervisor  
Mechanical Engineering Department  
National University of Singapore  
10 Kent Ridge Crescent  
Singapore 119260  
Office Tel : (65) 6516 2558  
Fax : (65) 6779 1459  
Email : arunmujumdar123@gmail.com

2. Professor Hawlader M.N.A  
M Engg. Supervisor  
Dept of Mechanical Engineering  
Faculty of Engineering  
International Islamic University  
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Email: mehawlader@iiu.edu.my