
M. L. PALASH

Ph.D. Scholar, Green Asia Program, Kyushu University.

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RESEARCH AREAS

- Carbon neutral energy conversion or utilization systems
- Surface energy, surface chemistry and adsorption phenomena of functional adsorbents
- Adsorbents material synthesis (parent and composites) and characterization for thermal energy driven adsorption cooling/refrigeration systems, and energy storage, CO₂ capture or storage applications
- Design of thermal or renewable energy driven adsorption systems

ACADEMIC QUALIFICATIONS

Degree	Field	University	From - To
Ph. D.	Energy & Environmental Engineering	Kyushu University, Japan	Oct. 2017 – Continuing
Master of Engineering (M. Eng.)	Energy & Environmental Engineering	Kyushu University, Japan	Oct. 2015 - Sept. 2017
Master of Science (M.S.)	Applied Physics, Electronics and Communication Engineering	University of Dhaka, Dhaka, Bangladesh	Mar 2008 - Mar. 2009
Bachelor of Science (B.S.)	Applied Physics, Electronics and Communication Engineering	University of Dhaka, Dhaka, Bangladesh	May 2002 - Sept 2007
H. S. C.	Science	B.A.F. Shaheen College, Tejgaon, Dhaka, Bangladesh	Aug. 1998 - Sept. 2000
S. S. C.	Science	Motijheel Model High School, Dhaka, Bangladesh	Jan. 1996- July 1998

WORK EXPERIENCE

1. **Assistant Professor**, Department of Electrical and Electronic Engineering, University of Dhaka, Bangladesh, Dec 2013 - present.
2. **Lecturer**, Department of Electrical and Electronic Engineering, University of Dhaka, Bangladesh, Sept 2010 – Dec 2013.
3. **Lecturer**, Department of Electronics and Communication Engineering, Institute of Science and Technology, Bangladesh, Jan. 2010 – Sept. 2010

4. **Part-time lecturer**, Institute of Leather Technology, University of Dhaka, Bangladesh, Jan. 2012 – Dec 2013
5. **Part-time lecturer**, Department of Nuclear Engineer, University of Dhaka, Bangladesh, Jan. 2014 – Dec 2014

INTERNSHIP

1. **Nanyang Technological University (NTU)**, School of Mechanical & Aerospace Engineering, Nanyang Technological University, Singapore., Feb. 2018 – Mar. 2018.
2. **Ristumeikan Asia Pacific University (APU)**, College of International Management, Oita, Japan, Jun. 2017 – Jul. 2017.
3. **Robi Axiata Limited**, Network Operation Center, Technical Division, Bangladesh, May 2008 – Aug. 2008.

RESEARCH EXPERIENCE

University/Institution	Status	Field	From - To
Kyushu University, Japan	Doctoral study	Study on metal-organic frameworks for adsorption heat pump systems.	Oct. 2017 – Continuing
World Premier International Research Center (WPI)-I2CNER, Japan	WPI Research Support Staff	Surface energy study on porous materials for adsorption heat pumps	Oct. 2018 – Sept. 2019
World Premier International Research Center (WPI)-I2CNER, Japan	WPI Research Support Staff	Synthesis and characterization of metal-organic frameworks for adsorption heat pump systems	Oct. 2017 – Sept. 2018
Nanyang Technological University (NTU), Singapore	Internship (abroad Japan)	Synthesis of metal-organic frameworks using hydrothermal process	Feb. 2018 – Mar. 2018
Kyushu University, Japan	Master course study	Topographic analysis of adsorbents using probe-based imaging technique	Oct. 2015 – Sept. 2017
Ristumeikan Asia Pacific University (APU), Oita, Japan	Internship (in Japan)	Socio-economic-environmental (SE2) impact of thermal power plan in developing countries	Jun. 2017 – Jul. 2017
University of Dhaka	Faculty member	Energy materials for the development of sustainable systems	Jan. 2015 – Sept. 2015
University of Dhaka	Faculty member	Frequency mapping for cooperative and cognitive radio networks	Jan. 2013 – Dec. 2015
University of Dhaka	Faculty member	Dynamic frequency distribution for wireless networks	Jan. 2010 – Dec. 2012
University of Dhaka	Master course study	Coverage planning of mobile WiMAX in urban and suburban environment using power scheduling scheme	Mar. 2008 – Mar. 2009

University of Dhaka	Bachelor course study	Survivability and fault tolerance of hierarchical MIP6	Jan. 2006 – Sept. 2006
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AWARDS AND HONORS

1. **“Best Poster award”**, for conference paper presented at International Exchange and Innovation conference on Engineering & Sciences, Oct. 18-19, 2018, Fukuoka, Japan
2. **“Hult Prize National Championship, Japan**, as a team leader of S-cube, we have won the national championship of Japan for our project titled as “Distributed system for the farmers of Bangladesh”, May 19-20, 2018, Osaka, Japan
3. **“QREC C&C Challenge”**, won the challenge as a team member of S-cube, Kyushu University, May 13, 2018, Fukuoka, Japan.
4. **“QREC J.O.C Challenge”**, won the challenge as a team member of S-cube, Kyushu University, April 24, 2018, Fukuoka, Japan.
5. **WPI Research Support Staff**, World Premier International (WPI) Research Center, International Institute for Carbon-Neutral Energy Research, Kyushu University, Apr. 1, 2018-Mar. 31, 2019, Fukuoka, Japan.
6. **“QREC GC&C Challenge”**, won the challenge as a team member of S-cube, Kyushu University, Jan. 16 2018, Fukuoka, Japan.
7. **“Young Researcher Award on Energy Research”**, Part of my research proposal was awarded for **“Bronze Award”** with research grant of 0.3 Million Yen. The award was given by the president of Kyushu University under the “Kyushu University Platform of Inter-/Transdisciplinary Energy Research”, Jan. 30, 2018, Fukuoka, Japan
8. **“Hult Prize Kyushu University Championship, Japan**, as a team leader of S-cube, we have won the national championship of Japan for our project titled as “Distributed system for the farmers of Bangladesh”, Dec. 17, 2017, Fukuoka, Japan.
9. **IGSES DEANS’ AWARD-2017**, Awarded for outstanding research and academic performance at masters thesis, Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Sept. 25, 2017, Fukuoka, Japan.
http://www.tj.kyushu-u.ac.jp/en/igses/c_current_std/awards_scholarships.php
10. **Green Asia Research Assistance (GA-RA)**, Advanced Graduate Program in Global Strategy for Green Asia, Kyushu University, Japan, Apr. 1, 2016 - Sept. 30, 2018.
11. **Scholarship for Master leading to Ph. D.** under the prestigious program “Advanced Graduate Program in Global Strategy for Green Asia”, Kyushu University, Japan (Period: Oct. 2015 - Sept. 2020).

SHORT-TERM FIELDWORKS AND TRAININGS

1. Hult Prize 2018 Global Accelerator Program, Hult Business School, London, UK (July 21 – Sept. 01, 2018).
2. Short-term field work FY2016 at National Yat-sen University, Taiwan Semiconductor Manufacturing Company (TSMC), Sinopharm at Kaohsiung, Taiwan (Jan 16-19, 2017).
3. Short-term fieldwork for 4 days at Yonsei University, Seoul, South Korea (Feb. 3-6, 2016).
4. Domestic (Japan) factory visit for 2 days at Nippon Steel & Sumitomo Metal Corp. in Oita factory and Toyota Motor Kyushu Inc. (Miyata plant) (Dec. 10-11, 2015).

JOURNAL PUBLICATIONS

1. **M. L. Palash**, Sourav Mitra, Shivasankaran Harish, Kyaw Thu, Bidyut Baran Saha, An approach for quantitative analysis of pore size distribution of silica gel using atomic force microscopy, *International Journal of Refrigeration*, (**In Press**).
2. Md. Zahir Uddin Suja, Sunayana Binte Bashar, **M. L. Palash**, Subrata Das, "Journal of the Bangladesh Electronics Society", 14(1-2), pp. 35-42 (2014).
3. **M. L. Palash**, M. Billah, M. J. Rashid, "Coverage planning of mobile WiMAX for the urban and suburban environment using power scheduling scheme. *International Journal of Innovative Technology and Exploring Engineering*", *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 3(5), pp 66-70 (2013).
4. **M. L. Palash**, Md. Zahirul Hoque Mozumder, "Nanotechnology and Governance in Bangladesh", *Nanotechnology Law and Business*, 10(2), pp. 146-156 (2013).
5. Masum Billah, **M. L. Palash**, H. M. M Alam, "Load Balanced Routing Protocols for Ad Hoc Mobile Wireless Networks", *International Journal of Engineering and Advanced Technology (IJEAT)*, 3(1), pp. 164-167 (2013).
6. Santa Rahman, Md Nahid Hossain, Md Nizam Sayeed, **M. L. Palash**, "Comparative study between wireless regional area network (IEEE standard 802.22) and WiMAX and coverage planning of a wireless regional area network using cognitive radio technology", *International Journal of Recent Technology and Engineering (IJRTE)*, 1(6), pp. 161- 163 (2013).
7. Md. Amirul Islam, **M. L. Palash**, Md. Habibur Rahman," A Microcontroller Based Digital Data Logger System for Solar Radiation Measurement", *Journal of the Bangladesh Electronics Society*, 13 (1-2), pp. 73-79 (2013).
8. Ayesha Zaman, **M. L. Palash**, Tanvir Atari, Shahida. Rafique, "Comparison of Survivability & Fault Tolerance of Different MIP Standards", *Radioelectronics & Informatics*, 4, pp. 14-17 (2009).

PATENT

1. M. Muttakin, B.B. Saha, K. Uddin, M.A. Islam, **M. L. Palash**, T.H. Rupam, A. Pal, "Waste heat driven distributed cold storage and potable water production system", Apr. 26, 2018 (**Applied**).

CONFERENCE/SYMPOSIUM PROCEEDINGS AND PRESENTATIONS

1. **M. L. Palash***, Kyaw Thu, Bidyut Baran Saha, "Qualitative and Quantitative characterization of nanoporous materials" *International Exchange and Innovation Conference on Engineering & Sciences*, Oct. 18-19, 2018, Fukuoka, Japan.
2. **M. L. Palash***, Kyaw Thu, Bidyut Baran Saha, "Surface Characterization of Porous Materials for Adsorption Cooling Systems", *International Conference on Material Science and Semiconductor Devices*, Sept. 7-8, 2018, Dhaka, Bangladesh.
3. **M. L. Palash***, S. Mitra, S. Harish, Kyaw Thu, B. B. Saha, "Topographic analysis of silica gel imaged with atomic force microscopy", *The 18th Cross-Straits Symposium on Energy and Environmental Science & Technology*, pp. 47-48, Dec. 4-6, 2016, Shanghai, China.
4. **M. L Palash***, S. Mitra, S. Harish, Kyaw Thu, K. Takahashi, B.B. Saha "An Approach for Quantitative Analysis of Pore Size Distribution of Silica Gel Using Atomic Force Microscopy", *International Sorption Heat Pump Conference (ISHPC 2017)*, Aug. 7-10, 2017, Tokyo, Japan.
5. **M. L. Palash*** "Topographic analysis of silica gel imaged with Scanning Probe Microscopy", *FY2016 Green Asia Program Short-term Fieldwork in Taiwan*, Jan. 17-19, 2017, Kaohsiung, Taiwan.

6. **M. L. Palash***, S. Mitra, K. Thu, B. B. Saha, "Implementing direct imaging technique for quantitative analysis of surface porosity of mesoporous adsorbents", Q-PIT annual symposium, Jan. 30, 2018, Fukuoka, Japan.
7. **M. L. Palash***, S. Mitra, K. Thu, B. B. Saha, "Study of In-situ and Ex-situ Porosity Of Mesoporous Silica Gel", International Forum for Green Asia 2017, Kyushu University, November, 2017, Fukuoka, Japan.
8. **M. L. Palash***, Zahirul Haque Mazumder, "Nanotechnology and Governance in Bangladesh", Nanotechnology- in the edge of convergence, Nov. 24-27, 2011, Selangor, Malaysia.

*presenting author

SKILLS

Experimental techniques:

- Material synthesis (Hydrothermal process for MOFs, In-situ, Ex-situ doping and composites)
- Imaging techniques (Atomic Force Microscopy, Scanning Electron Microscopy)
- Measuring of pore size distribution (N₂ adsorption, 3D imaging)
- Surface energy measurement (Inverse gas chromatography, Atomic Force Microscopy, FTIR)
- Adsorption characterization (Thermo-gravimetric analysis)

Language skills: English (Fluent), Bengali (Native), Hindi (workable), Japanese (workable), Arabic(reading)

Programing language: C, C++, Assembly

PERSONAL DETAILS

Father's Name	: Md Fazlul Haque	Marital Status	: Married
Mother's Name	: Khawla Khatun	Nationality	: Bangladeshi (by birth)
Date of Birth	: May 06, 1983	Religion	: Muslim
Gender	: Male		
Current Address	819-1105 Fukuoka-ken, Japan, Nishi-ku, Imajukunishi, 1-7-8, Room no: 405		
Permanent Address	Vill.: Shayestabad, Thana: Barisal Sadar, Dist.: Barisal, Country: Bangladesh		

REFERENCES

1. Dr. Bidyut Baran Saha

Professor and Principal investigator

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3. Dr. Takahiko Miyazaki

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