

## Curriculum Vitae

### 1. Name: SANJIDA MOURY

**Department/School/Program:** Electrical Engineering

**Present Rank/Title:** Assistant Professor

**Date Tenured (if appropriate):** N/A

**Date of Appointment:** August 2020

**Date:** June 2022

### 2. Academic and Professional Qualifications:

| Degree          | University  | Year | Thesis Title (if applicable)  |
|-----------------|---|------|---|
| Ph.D.           | York University, Canada                                     | 2020 | Soft-Switched Multi-Input Converter for Renewable Energy Systems                            |
| M.Eng. (Thesis) | Memorial University of Newfoundland, Canada                 | 2009 | Design of Axial Flux Permanent Magnet Generators for Under Water Application                |
| B. Sc.          | Khulna University of Engineering and Technology, Bangladesh | 2004 | An Evolutionary Approach to Optimize the Parameters of an On-chip Voltage Reference Circuit |

### 3. Chronological Account of Career (beginning with most recent):

| Appointment Dates | Position/ Job Title             | Employer                                    |
|-------------------|---------------------------------|---|
| 2020 – Present    | Assistant Professor             | Lakehead University, Canada                 |
| 2017              | Board Designer                  | Advanced Micro Device (AMD), Canada         |
| 2014 – 2020       | Research and Teaching Assistant | York University, Canada                     |
| 2011 – 2013       | Lecturer                        | North South University, Bangladesh          |
| 2008 – 2010       | Research and Teaching Assistant | Memorial University of Newfoundland, Canada |
| 2005 – 2007       | Lecturer                        | Stamford University, Bangladesh             |
| 2004 – 2005       | Lecturer                        | Green University, Bangladesh                |

#### 4. Honours and Awards:

| Year        | Award  |
|-------------|--|
| 2021        | ECCE 2021 WiE Attendance Grant (ECCE-Energy Conversion Congress and Exposition and WiE- IEEE Women in Engineering) |
| 2019        | Women in Renewable Energy (WiRE) APPrO (Association of Power Producer of Ontario)                                  |
| 2019        | EECS Teaching Excellence Award for Graduate Teaching Assistants, York University                                   |
| 2016 – 2017 | Ontario Graduate Scholarship (OGS)   |
| 2017 – 2018 | Ontario Graduate Scholarship (OGS)   |
| 2017        | 1 <sup>st</sup> place, EECS Three Minutes Thesis (3MT) Competition, 2017, York University                          |
| 2016        | Outstanding presenter award- APEC'16 (Applied Power Electronics Conference and Exposition)                         |
| 2015        | Lambert Family Award, York University  |

#### 5. Publications:

##### a) Life-time summary:

Papers in Refereed Journals: 2

Papers in Refereed Conference Proceedings: 17

##### b) Publication details:

##### Papers in Refereed Journals:

**S. Moury** and J. Lam, 'A Soft-switched, Multiport Photovoltaic Power Optimizer with Integrated Storage Interface and Output Voltage Regulation,' in IEEE Transactions on Industrial Electronics, vol. 68, no. 5, pp. 3917-3927, May 2021

**S. Moury** and J. Lam, 'A Soft-Switched Power Module with Integrated Battery Interface for Photovoltaic-Battery Power Architecture,' in IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 8, no. 3, pp. 3090-3110, Sept. 2020

#### 6. Conference Papers:

##### Papers in Refereed Conference Proceedings:

**S. Moury** and J. Lam, 'An Integrated PV-Battery Soft-switched Power Converter with MPPT and Voltage Regulation,' 2019 IEEE Energy Conversion Congress and Exposition (ECCE), Baltimore, MD, USA, 2019, pp. 3433-3440.

**S. Moury** and J. Lam, 'A Novel Soft-Switched Power Converter Architecture with an Integrated Energy Storage Interface Compatible with DC and AC Energy Sources,' 2018 IEEE Energy Conversion Congress and Exposition (ECCE), Portland, OR, 2018, pp. 6660-6667.

D. Aggarwal, **S. Moury** and J. Lam, 'A New Quasi-Resonant Soft-Switched Bidirectional DC/DC Converter for Energy Storage Application,' 2018 IEEE Energy Conversion Congress and Exposition (ECCE), Portland, OR, 2018, pp. 6654-6659.

- K. Kanathipan, **S. Moury** and J. Lam, 'A fast and accurate maximum power point tracker for a multi-input converter with wide range of soft-switching operation for solar energy systems,' 2017 IEEE Applied Power Electronics Conference and Exposition (APEC), Tampa, FL, 2017, pp. 2076-2083.
- S. Moury** and J. Lam, 'New soft-switched high frequency multi-input step-up/down converters for high voltage DC-distributed hybrid renewable systems,' 2017 IEEE Energy Conversion Congress and Exposition (ECCE), Cincinnati, OH, 2017, pp. 5537-5544.
- S. Moury**, J. Lam, V. Srivastava and R. Church, 'A novel multi-input converter using soft-switched single-switch input modules with integrated power factor correction capability for hybrid renewable energy systems,' 2016 IEEE Applied Power Electronics Conference and Exposition (APEC), Long Beach, CA, 2016, pp. 786-793.
- S. Moury**, J. Lam, V. Srivastava and R. Church, 'New soft-switched multi-input converters with integrated active power factor correction for hybrid renewable energy applications,' 2016 IEEE Energy Conversion Congress and Exposition (ECCE), Milwaukee, WI, 2016, pp. 1-8.
- S. Moury** and J. Lam, 'Modular isolated high frequency medium voltage (MV) step-up resonant DC/DC converters with high-gain rectifier for wind energy systems,' 2015 IEEE Energy Conversion Congress and Exposition (ECCE), Montreal, QC, 2015, pp. 4789-4796.
- S. B. Alam and **S. Moury**, 'Multiple-band antenna coupled rectifier circuit for ambient RF energy harvesting for WSN,' 2014 International Conference on Informatics, Electronics & Vision (ICIEV), Dhaka, 2014, pp. 1-4.
- S. B. Alam and **S. Moury**, 'Conversion of an ultra-wide-band (UWB) antenna to dual-band antenna for wireless body area network (WBAN) applications,' 2014 International Conference on Informatics, Electronics & Vision (ICIEV), Dhaka, 2014, pp. 1-4.
- S. B. Alam, M. S. Ullah and **S. Moury**, 'Design of a low power 2.45 GHz RF energy harvesting circuit for rectenna,' 2013 International Conference on Informatics, Electronics and Vision (ICIEV), Dhaka, 2013, pp. 1-4.
- S. B. Alam, M. S. Ullah and **S. Moury**, 'Design of a narrowband 2.45 GHz unidirectional microstrip antenna with a reversed 'Arrow' shaped slot for fixed RFID tag and reader,' 2013 2nd International Conference on Advances in Electrical Engineering (ICAEE), Dhaka, 2013, pp. 301-304.
- S. Moury**, M. Nazim Khandoker and S. M. Haider, 'Feasibility study of solar PV arrays in grid connected cellular BTS sites,' 2012 International Conference on Advances in Power Conversion and Energy Technologies (APCET), Mylavaram, Andhra Pradesh, 2012, pp. 1-5.
- S. Moury**, N. K. Nisha and M. Hoque, 'Design approach to generation of electricity from vibrations,' 2012 7th International Conference on Electrical and Computer Engineering, Dhaka, 2012, pp. 622-625
- S. Moury** and M. T. Iqbal, 'A permanent magnet generator with PCB stator for low speed marine current applications,' 2009 1st International Conference on the Developments in Renewable Energy Technology (ICDRET), Dhaka, 2009, pp. 1-4.
- S. Moury** and R. Ahshan, 'A feasibility study of an on-grid solar home system in Bangladesh,' 1st International Conference on the Developments in Renewable Energy Technology (ICDRET), Dhaka, 2009, pp. 1-4.
- S. Moury** and M. Tariq Iqbal, 'A new approach to minimize the cogging torque of axial flux PMG for under water applications,' 2009 Canadian Conference on Electrical and Computer Engineering, St. John's, NL, 2009, pp. 1167-1171.

Keynote speaker:

**S. Moury**, 'The Next-Generation Power Electronics Interface for Green Applications,' 2022 IEEE LASCAS- Circuits and Systems Society in Latin America (WiCAS event), Chile, March 2, 2022.

**7. Professional Associations:**

| Year           | Association   |
|----------------|---|
| 2014 – Present | Senior Member, IEEE (Institute of Electrical and Electronics Engineers) |
| 2015 – Present | IEEE Industry Application Society (IAS)                                 |
| 2015 – Present | IEEE Women in Engineering (WiE)   |
| 2015 – Present | IEEE Young Professionals  |
| 2015 – Present | IEEE Power Electronics Society (PELS)                                   |
| 2016           | IEEE Power and Energy Society (PES)                                     |

**8. Professional Committees/Service to the Profession:**

| Year           | Association   |
|----------------|---|
| 2022 – Present | ECCE-2023 Conference (Late Breaking Research)               |
| 2022 – Present | ECCE-2022 Conference (Women in Engineering)                 |
| 2020 – Present | IEEE PELS TC7 Committee (Critical Power and Energy Storage) |
| 2020 – Present | IEEE PELS TC5 Committee (Sustainable Energy Systems)        |
| 2018 – Present | Women in Renewable Energy (WiRE), Canada                    |
| 2021           | ECCE-2021 Conference (Women in Engineering)                 |

**9. Courses Taught and Participation in Curriculum Development:**

**a. Undergraduate Courses:**

| Year | Number       | Course Name                            | Number of Students |
|------|--------------|--|--------------------|
| 2020 | EELE<br>1637 | Computer Logic Circuits                | 38                 |
| 2021 |              |  | 20                 |
| 2020 | EELE<br>3310 | Circuit Analysis & Design              | 12                 |
| 2021 |              |  | 14                 |
| 2020 | EELE<br>4053 | Communication Systems                  | 12                 |
| 2021 |              |  | 67                 |
| 2021 | EELE<br>2137 | Engineering Probability and Statistics | 15                 |
| 2022 |              |  | 18                 |
| 2021 | EELE<br>0531 | Application of Power Electronics       | 5                  |
| 2021 | ESOF<br>3558 | Numerical Analysis and Modeling        | 10                 |
| 2022 |              |  | 13                 |