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| **Personal**  **Information** |  | |  | | **C:\Users\SB\Desktop\IMG_20141104_020939 - Copy.jpg** | |  | |
| Name | |  | **Dr. Sankar Barman** |  | |  | |
| Address | |  | H.No-2, First Floor  Bye Lane-3, Bishnu Rabha Path,  Beltola, Guwahati-781 028,  Assam, India |  | |
| Contact(s) | |  | +91-7665186000 |  | |
| E-mail | |  | s[barman@](mailto:barman.sankar@gmail.com)rgu.ac |  | |
| Nationality | |  | Indian | | |  | |
| **Carrier Objective** | |  | To secure a challenging position that offers professional growth along with innovation and flexibility to serve humanity in the best ways. | | |  | |
| **Work Experience** | |  |  | | |  | |
| 1. **Position held** | |  | Associate Director, Associate Professor, Innovation Ambassador (MoE) | | |  | |
| Responsibilities | |  | The primary responsibility of the current position is the teaching to undergraduate and postgraduate students and guiding them in their research activities and overall growth. Research and innovation leading to the development of products is another important work of the current designation. | | |  | |
| Name and address of employer | |  | Royal Global University, Betkuchi, Opp. Balaji Temple, Guwahati-781 035 | | |  | |
| Type of business | |  | Education and Research | | |  | |
| Duration | |  | March 2018-Till date | | |  | |
|  | |  |  | | |  | |
| 1. **Position held** | |  | Project Engineer | | |  | |
| Responsibilities | |  | Product development, development of testing rigs for renewable and energy-efficient technology, development of project proposals, writing of research documents, and presentation. Analysis of weather data and occupant thermal comfort, multiple simulations, demonstration of laboratory equipment, helping to master students in their projects, and course practical were some of the additional responsibilities. | | |  | |
| Name and address of employer | |  | Malaviya National Institute of Technology Jaipur (MNITJ), J L N Marg, Jaipur, Rajasthan, India, Pin code:302017 | | |  | |
| Type of business | |  | Education and Research | | |  | |
| Duration | |  | January 2015-December 2017 | | |  | |
| 1. **Position held** | |  | Senior Engineer- Research and Development | | |  | |
| Responsibilities | |  | I was responsible for providing technical leadership to an interdisciplinary R&D team for the development of new products in the field of renewable energy. Product development, preparation of user manual and coordination among all the stakeholders for the new product development, dissemination, and training to end-users were other responsibilities. I was also responsible for monitoring the progress in renewable energy technology and related fields to evaluate the prospects of developing new or improved products. | | |  | |
| Name and address of employer | |  | Ecosense Sustainable Solutions Pvt. Ltd, F-34/8, Okhla Industrial Area Phase - II, New Delhi – 110020, India | | |  | |
| Type of business | |  | Research and development | | |  | |
| Duration | |  | January 2012-December 2014 | | |  | |
|  | |  |  | | |  | |
| 1. **Position held** | |  | Research Analyst | | |  | |
| Responsibilities | |  | Was responsible for the promotion of solar thermal technologies in India through technology demonstration, conferences, policy advocacy | | |  | |
| Name and address of employer | |  | Forum for Advancement of Solar Technology (FAST), Gurgaon, Haryana, India | | |  | |
| Type of business | |  | Research and policy advocacy | | |  | |
| Duration | |  | July 2011- November 2011 | | |  | |
| **Research Publications** | |  | [1] **S. Barman**, A. Chowdhury, S. Mathur, J. Mathur. (2018). Assessment of the efficiency of window integrated CdTe based semi-transparent photovoltaic module. *Sustainable Cities and Society* 37, 250-262. **I.F: 10.696**  [2] **S. Barman**, A. Chowdhury, S. Mathur, J. Mathur. (2021). Angular loss of window integrated thin film semi-transparent photovoltaic module. *Journal of Building Engineering* 40, 102353. **I.F: 7.144**  [3] **S. Barman**, A. Chowdhury, S. Mathur, J. Mathur. (2021). Performance of window integrated photovoltaic system in actual operating condition. *Solar Energy* 224, 480-490. **I.F: 7.188**  [4] **S. Barman,** A. Chowdhury, S. Mathur, J. Mathur. (2022). Effectiveness of spectrally selective layer and airflow strategies in photovoltaic double pane window system**.** *Journal of Building Engineering* 62, 105417. **I.F: 7.144**  [5] **S. Barman**, H. Das, K. Das. (2021). Temperature Characteristics of Semi-Transparent Photovoltaic Module in a ventilated double pane window system. *Recent Trends in Civil Engineering & Technology 12, 1-10.* **I.F: 0.00**  [6] **S. Barman**, H. Das (2022). Innermost Surface Temperature Characteristics of Solar Photovoltaic Double Pane Window. *Journal of Alternate Energy Sources and Technologies 12, 30-40***. I.F: 4.395**  [7] H. Das, **S. Barman**, K. Das. (2022). Macro-flow dynamics of wind over C, H and L type buildings. *Energy, Environment & Carbon Credits 11(3)*, 43-58. **I.F: 4.312**  [8] **S. Barman** (2022). Evaluation of Electrical and Thermal Energy Performance of a Semi-transparent Photovoltaic Module Integrated Double Pane Window System Under Different Air Flow Strategies. *Journal of Alternate Energy Sources & Technologies.* 13(1), 1–14. **I.F: 4.395**  [9] N. Sonowal, **S. Barman**, H. R. Das (2022). Analysis of Shading and Energy Generation by PV Overhang Using Different Models. *Journal of Alternate Energy Sources & Technologies*; 13(3): 1–16.**I.F: 4.395**  [10] M. Das Roy, **S. Barman**, B. Kalita (2023) Effectiveness of Surface Texturing and Optical Width in Minimizing the Optical Loss of a Solar Cell: a Simulated Study. *Journal of Applied and Fundamental Sciences;* 8(1): 39-50.  [11] **S. Barman,** P.H.Talukdar(2023).Water electrolysis-based hydrogen generation systems: A review. *Journal of Alternate Energy Sources & Technologies* ; 14(1): 30–38 . **I.F: 4.395S.**  [12] **S. Barman1,** B. Kalita (2022). Energy, environment and cost benefit analysis of semi-transparent PV window-a review. *Journal of Applied and Fundamental Sciences;* 8(2): 103-108.  [13] B. Kalita **S. Barman1,**  (2022). Decision making with simplex model: a case study. *Journal of Applied and Fundamental Sciences;* 8(2): 81-88.  [14]T. K. Ghosh, **S. Barman**, H. R. Das, (2024).Analysis of methods of development, structure and properties of engineered bamboo materials. Journal of Energy, Environment & Carbon Credit; 14(10): 25-32.  [15] **S. Barman,** A. Chowdhury, S. Mathur, J. Mathur. (2017).Effects of window configuration and air ventilation strategy on energy generation of window integrated semi-transparent SPV module. SOLARIS 2017; conference on Renewable Energy Sources for Sustainable Climate, IIT Varanasi, India. | | |  | |
| *Book Chapter*  *Assignment Journal* | | | * S.Barman (2024). Comprehensve Guide for Solar Water Heater Systems: Design, Installation and Maintenance. *Bridging Disciplines: Navigating Multidisciplinary Perspectives; Published by Data Point Consultancy for Multidisciplinary Research;ISBN:978-81-974418-2-0* * Certified reviewer of the Journal of Building Engineering (JOBE). It is a SCI journal of impact factor: 7.144. * Certified reviewer of the Journal of Alternate Energy Sources & Technologies. It is an international peer review journal of impact factor: 4.359. | | | |  | |
| **Patent**   1. **Title** 2. **Title** | | | A portable device to cut soft sheets in circular shape with adjustable radius. Ref. No: 202231021448  Marker pen made of biodegradable materials. Ref. No.: 202231045258 | | | |  | |
| **Research Projects** | | |  | | | |  | |
| 1. **Title** | |  | Design, Development and Analysis of Solar Assisted Modular Hydrogen Based Cooking/Heating System | | |  | |
| Submitted to  Cost | |  | Technology Missions Division, Ministry of Science and Technology, GoI  Rs. 57,02,400/- | | |  | |
| 1. **Title** | |  | Demonstration, Training and Dissemination of Basic Healthcare and Cutting Edge Technologies Among the Rural Population | | |  | |
| Submitted to  Cost | | | National Council for Science and Technology Communication (NCSTC), Ministry of Science and Technology, GoI.  Rs. 34,29,840/- | | | |  | |
| 1. **Title**   Submitted to  Cost | | | Development, Characterization and Product Design of Engineered Materials using Bamboo and Cane found in North East India  North East Centre for Technology Application & Reach (NECTAR), GoI  Rs.1,07,51,000/- | | | |  | |
| **Product Developed and Dissemination** | | | * 1. Developed and transferred solar water heater training system   2. Developed and transferred solar water distillation training system   3. Developed and transferred solar air heater training system   4. Developed and transferred PCM based thermal energy storage system   5. Developed Semi-Transparent Solar Photovoltaic integrated double pane window   6. Developed a Building Integrated Photovoltaic (BIPV) system test chamber at Malaviya National Institute of Technology Jaipur (MNITJ) | | | |  | |
| *Innovation done at RGU* | | | * Innovated a banana leaf cutting machine as per the request of NEDFi. Also developed banana plates using the above machine and other setup * Developed a hot press machine for sheet materials * Innovated a Marker pen made of biodegradable materials | | | |  | |
| **FDP, Workshop, Seminar, Conference and Field trip, Webinar** | | | * Organizing members for Regional Meet, Institution’s Innovation Council 2024 organized by MoE, Govt of India on January 9. * Coordinator for Smart India Hackathon 2023 organized by MoE, Govt of India on 19th and 20th December 2023. * Two projects have been selected for the YUKTI Innovation Challenges Award 2023, organized by MoE’s Innovation Cell, Govt of India. * Coordinator for MoU signing ceremony with 100 institutions , organised by the Assam Royal Global University on 12th December 2023 * Institutional recognition award for the patent activities carried out in the year 2022-2023 from The Assam Royal Global University, Guwahati. * Faculty coordinator for carrier counseling, promotion and branding activities during 2022-2023 * Organizing coordinator of ANVESHAN 2022, a 2-day East zone student research convention organized by the Association of Indian Universities (AIU) and the Assam Royal Global University, 1st and 2nd March 2023 * Completed “Innovation Ambassador Training” (Advanced level) conducted by MoE's Innovation Cell & AICTE, from 30th June – 30th July 2022 * Organizing members of Ideathon 2021, IIC-RGU, held on 6th January 2022 * Organising coordinator of the interactive session with Dr. Debashis Borah, Associate Professor, Department of Physics, Indian Institute of Technology-Guwahati on 25th November 2021 * Organising coordinator of the webinar on Space Instrumentation Scientist Very-High Energy Astrophysics by Dr. Angaraj Duwara, Space Research Centre, England on 18th November 2021 * Coordinate the departmental webinar on the Fascinating World of Elementary Particles, 23rd October 2021 * Organising members of the Impact Lecture Series-I & II on 4th October and 27th October 2021 respectively, organised by IIC-RGU * Completed “Innovation Ambassador Training” (Foundation level) conducted by MoE's Innovation Cell & AICTE during from 30th June – 30th July 2021 * Coordinate the departmental webinar on the Some Aspects of the Light of the Firefly, 5th June 2021 * Attended FDF on “Student Induction on UHV” from 21st to 25th June 2021 organised by AICTE. * Organising members of the international conference on “Emerging Areas in Science & Technology, (EAST 2021) 1st and 2nd June 2021 * Organising members of the workshop on intellectual property rights (IPRs) and IP management for start-up organised by IIC-RGU, 4th March 2021 * Convener of the Science day celebration committee (RSAPS) 3rd March 2021 * Attended ARIIA 2021: Orientation Session & Demonstration of Data Submission Portal organised by ARIIA Implementation Team, MoE's Innovation Cell, Govt. of India, on 22nd December 2020 * Organising members of the 3 day webinar series organised by RSAPS , 10th to 12th November 2020. * Attended short-term course on “Recent advances of 3D printing and its Bio-medical Engineering Applications." from 12th to 16th October 2020 organised by RGU * Coordinate the departmental webinar on Green Technologies, 1st Sept 2020 * Coordinate the departmental webinar on Semiconductor Technology: Challenges and Opportunities, 28th August 2020 * Attended FDP on “Emerging Prospects of STEM Education in Engineering and Technology” from 21st to 28th July 2020 organised by RGU * Attended FDP on “Importance of cross-disciplinary research in the post covid-19 scenario: social perspectives" from 16thto 23rd June 2020 organised by RGU. * Convener of the organising committee of Science Conclave at RGU, 15th and 16th December 2018. * Coordinator of the poster competition among the RGU students on the eve of National Science Day, 28th Feb 2020 * Organised field trip to Regional Science centre -Guwahati 14th Feb 2020 * Presented a research paper at IIT-BHU in the SOLARIS 2017 conference, held from 21st to 23rd February 2017 * Organising members of the scientific community of the 14th International Building Simulation Conference BS2015, Hyderabad, India, 7th to 9th December 2015. * Invited as a guest lecture at the Technical Seminar on “Sustainable Energy” organized by Dronacharya College of Engineering- Gurgaon on 12th March 2014 * Invited as a resource person by the department of physics of Guwahati University to deliver a talk on “Sources of Renewable Energy; Solar Energy” on 12th October 2012. | | | |  | |
| **Technology Demonstrated and Training cum delivered**  *International Assignment* | | | * Demonstrate and give training to the faculty in-charge and lab in-charge in the Department of Energy Science and Engineering of IIT Bomby, on PCM based heat storage system on 18th December 2014 * Delivered seminar talk on solar energy to foreign delegates on 9th September 2014 at Solar Energy Centre-Gurgaon * Demonstrate and give training to the faculty in-charge and lab in-charge in the Department of Mechanical Engineering of PDPU-Gujarat on Solar distillation system on 27th September 2013 * Demonstrate and give training to the faculty in-charge and lab in-charge in the Department of Mechanical Engineering of Modern Engineering College-Kerala on Solar Air Heater on 12th July 2012. * Demonstrate and give training to the faculty in-charge and lab in-charge in the Department of Mechanical Engineering of ***Tel Aviv University, Israel***on solar water heater on 9th March 2014. | | | |  | |
| **Other Organizational Responsibilities** | | | 1. Member and ARIIA coordinator of the Institution’s Innovation Council, The Assam Royal Global University (IIC-RGU) 2. Member of Patent Filling Committee, The Assam Royal Global University 3. Member of the Experts Committee for formulation and implementation of the National Innovation and Start up Policy (NISP) at The Assam Royal Global University 4. Member of Department Research Committee (DRC), Department of Physics, The Assam Royal Global University 5. Member of the Departmental Internal Quality Assurance Cell (IQAC), Department of Physics, The Assam Royal Global University 6. Department representative in the examination cell, The Assam Royal Global University 7. Member of the MoU implementation committee, The Assam Royal Global University 8. Member of the Screening committee for the selection of incubatee for IIC-RGU 9. Pioneer member of the team for the implementation of ARIIA in The Assam Royal Global University an initiative of the MoE, GoI. 10. Pioneer member of the team for the implementation of UHV in The Assam Royal Global University, an initiative of the AICTE, GoI. | | | |  | |
| **Education and Training** | | |  | | | |  | |
| 1. **Title of qualification** | |  | Ph.D. in Energy and Environment | | |  | |
| Name and type of organization | |  | Malaviya National Institute of Technology Jaipur (MNITJ)  Education and Research | | |  | |
| Duration | |  | January 2015-August 2018 | | |  | |
| 1. **Title of qualification** | |  | M. Tech. in Energy Studies | | |  | |
| Name and type of organization | |  | Indian Institute of Technology, Delhi (IIT-D)  Education and Research | | |  | |
| Principal subjects | |  | Economics & Planning of Energy Systems; Energy Conservation; Energy, Ecology, and Environment; Solar Energy Utilization; Solar Architecture; Solar Refrigeration and Air Conditioning; Semiconductor Device Technology; Nonconventional Sources of Energy; Direct Energy Conversion; Heat Transfer | | |  | |
| Duration | |  | July 2009-August 2011 | | |  | |
|  | |  |  | | |  | |
| 1. **Title of qualification** | |  | M.Sc. in Physics | | |  | |
| Name and type of organization | |  | Gauhati University (GU)  Education and Research | | |  | |
| Principal subjects | |  | Condense matter physics; Classical & Quantum mechanics; Nuclear & High energy physics; Mathematical physics; Electrodynamics; Electronics | | |  | |
| Duration | |  | January 2003- December 2004 | | |  | |
|  | |  |  | | |  | |
| 1. **Title of qualification** | |  | B. Sc. in Physics (H) | | |  | |
| Name and type of organization | |  | Bajali College (BC)  Education | | |  | |
| Principal subjects | |  | Physics; Mathematics; Chemistry | | |  | |
| Duration | |  | August 1998- September 2001 | | |  | |
|  | |  |  | | |  | |
| 1. **Major test cleared** | |  | Graduate Aptitude Test in Engineering (GATE, 2009) with 306 All India Rank. The GATE is a national examination conducted by the IIT’s and IISc Bangalore, on behalf of the National Coordinating Board-GATE, MHRD, Govt. of India | | |  | |
| **Skills and**  **Competence** | | |  | | | |  | |
| Computer skills and competence | |  | * PVSyst, EnergyPlus; SketchUp; eQUEST; Design-Builder * SMART; WINDOW; OPTICS; RADIANCE * TFCalc; IMD; Origin * Basic Knowledge of MATLAB; COMSOL; CAD; SOLIDWORKS, SAM, HOMER, RETScreen | | |  | |
| Language skill | |  | English; Hindi; Assamese; Bengali | | |  | |
| Social skills and competence | |  | Excellent communication as well as analytical, project management, and planning skills in a cross-functional team. Proven skills in solving the customer's technical issues with the research products. | | |  | |
| Organisational skills and competence | |  | Adept at motivating and directing a group of fabrication and production staff focused on core technology development. Assist the marketing department and sales team in new product introduction and provide initial technical support of new products. | | |  | |
| Technical skills and competence | |  | Over six years’ experience in research and development of new products and related training to all stakeholders along with modeling, and simulation of various energy-related issues | | |  | |
| Equipment skills and competence | |  | * 3-D printer, Pyranometer; Solar Module analyzer; Battery analyzer; Weather station. * gSkin U-Value kit; Heat flux sensor; Conductive and radiative heat flux meter, UV-VIS-IR spectrophotometer; Window energy profiler; Solar spectrum transmission meter, Infrared camera; Thermal constant analyzer * Testo480; Combined data logger for temperature, humidity, lux level and air velocity, Ultrasonic flow meter | | |  | |

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