

Curriculum Vitae

Qiquan (Quinn) Qiao, Ph.D.

Harold C. Hohbach Professor of Electrical Engineering
Director, EDA University Center for Commercialization of Sustainable Energies & Precision Agriculture
Site Director, NSF IUCRC Center for Green Electric Power Generation and Storage (CEPS)
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Google Scholar Citations: > 6300
h-index: 39

<https://scholar.google.com/citations?user=hk6BJvsAAAAJ&hl=en>

Professional Preparation

<u>Institution</u>	<u>Field</u>	<u>Degree</u>	<u>Year</u>
University of Florida		Post Doc	2007
Virginia Commonwealth Univ., Richmond, VA, USA	Engineering	Ph.D.	2006
Shanghai Institute of Optics & Fine Mechanics, Chinese Academy of Sciences, Shanghai, China	Engineering	M.S.	2003
Hefei University of Technology, Hefei, Anhui, China	Engineering Sensing & Instrumentation	B.S.	1999

Appointments

<u>Institution</u>	<u>Position</u>	<u>Date</u>
EDA University Center	Director	2018-present
Nano Tek, LLC	Founder	2018-present
South Dakota State University Brookings, SD, USA	Harold C. Hohbach Professor Graduate Director Electrical Engineering	2017-present
South Dakota State University Brookings, SD, USA	Harold C. Hohbach Associate Professor and Graduate Director Electrical Engineering	2016-2017
South Dakota State University Brookings, SD, USA	Associate Professor Electrical Engineering	2013-2016
South Dakota State University Brookings, SD, USA	Assistant Professor Electrical Engineering	2007-2012

University of Florida, Gainesville, FL, USA	Postdoc	2006-2007
Shanghai Institute of Optics & Fine Mechanics, Shanghai, China	Engineer	1999-2003

Awards and Recognitions

- 2019 Best Paper Award, EIT2019
- 2018 South Dakota State University Commercialization Award
- 2017 Faculty Award for Global Engagement: Excellence in International Research, SDSU
- 2016-present, Harold C. Hohbach Professorship
- 2016 Distinguished Researcher, SDSU
- 2015 Excellence in Research, SDSU Department of Electrical Engineering and Computer Science
- 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011 J. Lohr College of Engineering Grantsmanship Award
- 2014 F O Butler Award for Excellence in Research, South Dakota State University
- 2014 Visiting Professorship from Hefei University of Technology, China.
- 2013 Best Poster Award (Hytham Elbohy) at 3rd International Conference on Nanotek and Expo, Las Vegas, NV, USA.
- 2013 Best Poster Winner (Olusegun Adebajo), SD EPSCoR All Investigator Meeting
- 2012 Best Paper Award (Ashish Dueby), Inter-Continental Advanced Materials for Photonics (I-CAMP) Summer School on renewable and sustainable energy
- 2012 3M Non-tenured Faculty Award
- 2012 Young Investigator Award from SDSU College of Engineering.
- 2010 NSF CAREER Award
- 2010 Excellence in Research Award in the Electrical Engineering and Computer Science, SDSU
- 2009 Bergmann Memorial Research Award from US-Israel Binational Science Foundation
- 2009 Doctor New Investigator Award from American Chemical Society Petroleum Research Fund
- 2006 Chinese Government Award for Outstanding Self-financed Student Abroad, China Scholarship Council (CSC)
- 2006 ASME Solar Energy Division Graduate Student Award
- 2006 VCU GSA Travel Grant Award
- 2005 Energy Technology Division Travel Grant, the Electrochemical Society (ECS), 208th Meeting, - Los Angeles, California.
- 2005 VCU Graduate School Travel Grant to present at 208th meeting of ECS in Los Angeles.

Research interests

- Sustainable energy generation (e.g., photovoltaics) and storage (e.g., lithium batteries) systems
- Solar powered wireless sensor networks for precision agriculture
- Sensors technologies (e.g., biomedical sensors, agriculture sensors)
- Optical coating (anti-reflection, light trapping, etc.)
- Light management
- Organic electronics (organic light emitting diodes, organic transistors)
- Precision agriculture technologies
- Atomic force microscopy-based instrumentation for nanoscale mapping of charge carrier dynamics

Awarded research grants

During the last nine years at SDSU, I have received about 35 research grants as PI and co-PI, with total fund of about \$11.5 Million. I also served as task lead and senior investigator for the PANS and NSF MRI project (about \$20.2M).

Funded grants (PI, co-PI and senior investigator)	\$ Amount
1. Experimental Test Bed for Sprayer Nozzles, Raven Industry, co-PI, 01/07/2019 to 12/31/2019	\$94,790
2. University Center at South Dakota Commercialization and Workforce Development in Environmentally-Sustainable Energy and Precision Agriculture Sensors Technologies, 10/2018-09/2023, EDA University Center Program, Center Director & PI	\$1,450,000
3. NSF I-Corps Teams: Development of Noninvasive Diabetes Breath Sensors, 12/01/2018 – 05/31/2020, NSF I-Corps, PI and Technical Lead	\$50,000
4. Planning IUCRC: Center for Solid-State Green Electric Power Generation and Storage (CEPS), 01/01/2019 – 12/31/2019, SDSU PI and Site Director, NSF Industry/University Cooperative Research Center (IUCRC)	\$15,000
5. Enhancing Energy, Agriculture and Biotechnology Research and Commercialization Infrastructure through Upgrading Scanning Electron Microscopy, 01/2018-05/2020, SD BoR R&D Grant Program, PI.	\$300,418
6. Development of Novel Instrumentation to Probe Nanoscale Charge Carrier Dynamics with high Temporal and Spatial Resolution, PI, NSF, 8/1/2014 to 7/31/2020	\$450,065
7. Development of Highly Efficient Tandem Perovskite/Polymer Solar Cells, National Academy of Science, 100%. 07/01/2016-06/30/2019	\$163,962
8. Team Development for the Center for Advanced Sensors (CAS), SD Governor Office of Economic Development (GOED) and SDBOR, 07/01/2016-06/30/2017	\$65,350
9. Team Development for Center for Acceleration of Research and Development of Electrospun Nanofibers (CARDEN) FY17, 07/01/2016-06/30/2017	\$15,000
10. Development of Intelligent Control System on Autonomous Robot Navigation for NASA Space Applications, co-PI, NASA EPSCoR RIG, 01/15/2016-09/30/2017	\$15,001
11. "New Approaches for Lower Cost, Longer stability, and Higher Efficiency of Dye-Sensitized Solar Cells", US PI, USA-Pakistan S&T Program, 07/15/2013-02/28/2018, Pakistan side US \$280,786, US side US \$236,410	\$ 517,196
12. "Flexible Electronics for Space Applications: Development of New Materials and Device Processing Technologies", institutional PI, NASA EPSCoR, 02/01/2013 – 01/31/2016	\$750,000
13. MRI: Acquisition of a Powder/Thin film X-ray Diffractometer for Alternative Energy Research and Education, PI, 09/01/2012-08/31/2014	\$271,189
14. Development of Wearable Wellness Factors for Sanford Profile, SDSU-Sanford Collaborative Research Program, PI, 10/01/2015-09/31/2017	\$61,170
15. NSF IGERT: Nanostructured Solar Cells: Materials, Processes and Devices, NSF, subcontract from USD, SDSU PI (replace D. Galipeau), 09/01/2014-08/31/2016	\$3,030,253
16. High performance and durable lithium ion batteries for NASA space applications, institutional PI, NASA EPSCoR, 09/01/2013-08/31/2016	\$750,000

17. Development of Direct-Write Materials, and Electronic and Electromagnetic Devices for NASA Printable Spacecraft, co-PI, NASA EPSCoR, 09/01/2015 - 09/01/2018	\$750,000
18. REU supplement grant for CAREER grant, PI, NSF, 08/01/2013 to 01/31/2016	\$24,000
19. Bench fee for a visiting student Eman Gaml, PI, Egyptian Government, 09/01/2015 to 08/31/2016	\$10,000
20. "Novel Triplet Polymer based Solar Cells as a New Path for Higher Efficiency", PI, NSF CAREER award, 02/01/2010-01/31/2016.	\$436,000
21. "Development of an Advanced Photovoltaic Materials Research Cluster in South Dakota", institutional PI, awarded by NASA EPSCoR, 09/01/2009-08/31/2014.	\$750,000
22. "Variable Band-gap Block Polymers Made from N-type Organoborane Polymers and P-type Thiophene polymers for Photovoltaics", co-PI, awarded by NSF, 09/01/2008-08/31/2010.	\$200,000
23. 3M Nontenured Faculty Grant Award, PI, 2012-2014	\$45,000
24. "Development of transient measurement", PI, Agilent Foundation, 2012-2013	\$40,000
25. "Novel polymers for highly efficient organic solar cells", PI, South Dakota Board of Regents Competitive Research Grants Program, 07/01/2011-06/31/2013	\$150,000
26. "Determination the Feasibility of Using Variable-Bandgap Polymers for Efficient Photovoltaics", PI, awarded by American Chemical Society PRF DNI, 07/01/2009-06/31/2011.	\$100,000
27. "Initiation of a New Research Infrastructure for Space Power Generation", PI, awarded by South Dakota Space Grant Consortium, 06/01/2009-05/31/2010	\$50,000
28. "Hybrid Multijunction High Efficiency Polymeric Photovoltaic Cells", PI, U.S.-Egypt Science and Technology Joint Board through USDA, 10/01/2009-09/31/2011	\$90,000
29. "Organic Solar Cells Based on Novel Polyselenophenes", PI, awarded by US-Israel BSF, 07/01/2009-06/31/2011	\$75,000
30. "MRI: Development of a Scanning Probe Microscopy Tool to Study Nanoscale Photoactivated Processes", co-PI, NSF, 08/01/2009-07/31/2011	\$451,353
31. "Full Spectrum Conjugated Polymers for Highly Efficient OPV", SDSU PI, awarded by National Science Foundation Small Business Technology Transfer (STTR), 2009-2010	\$75,000
32. "Novel Highly Efficient Nanostructure Solar Cells for Space Power Generation", PI, award by SDSU Research Scholar Start Up, 2009-2010	\$7,000
33. "Development of two innovative lab stations for the new created photovoltaic courses", PI, SDSU New Ideas Program, 2008-2009	\$14,000
34. "Novel Full Spectrum Dye-sensitized Solar Cells", PI, SD NASA EPSCoR, 2007-2008	\$40,000
35. "MRI: Acquisition of a Femtosecond Fluorescence Upconversion System", senior investigator, NSF MRI program, 08/01/2007-07/31/2008	\$242,285
36. "Beyond the 2010 Initiative: Partnerships for Competitiveness", task lead, NSF EPSCoR, 08/15/2009-07/31/2014, senior personnel.	\$20M

US Patents

T-00025	United States of America	10/2/2009	61/248,178	Provisional	10/2/2009	TiO ₂ Nanofiber/Nanoparticle Mixture Anode for Highly Efficient Dye Sensitized Solar Cells. Semiconductor Nanoparticle/Nanofiber Composite Electrodes
T-00025	United States of America	10/2/2010	12/896,860	Utility	10/2/2009	Semiconductor Nanoparticle/Nanofiber Composite Electrodes
T-00025	United States of America	10/2/2010	PCT/US2010/51237	Patent Cooperation Treaty	10/2/2009	Semiconductor Nanoparticle/Nanofiber Composite Electrodes
T-000237	United States of America	8/13/2012	61/682,628	Provisional	10/4/2012	Carbon nanofiber-based composites and electrodes and devices incorporating the same
T-000427	United States of America	11/22/2017	62/590,017	Provisional	11/22/2017	Atomic Force Microscope Based Instrumentation for Probing nanoscale Charge Carrier Dynamics with Improved Temporal and Spatial Resolution

Invention discoveries

Tech Id	Title
T-00023	Variable Band-gap Block Copolymers made from n-Type Organoborane Polymers and p-Type Thiophene Polymers for Photovoltaics
T-00025	TiO ₂ Nanofiber/Nanoparticle Mixture Anode for Highly Efficient Dye Sensitized Solar Cells
T-00048	Flexible Triple Yield Solar Cells
T-00049	Flexible Display System
T-00050	Novel Polymer-based Electrochromic Devices
T-00051	Novel Quantum Dot Sensitizers for Highly Efficient Dye-Sensitized Solar Cells
T-00139	Carbon Nanofibers as a Low-Cost Alternative to Existing Pt Counter Electrode
T-00237	Composites of carbon nanofibers/carbon nanoparticles and carbon nanofibers/platinum nanoparticles as a low-cost electrode for DSSCs (old title: Pt-incorporated Carbon Nanofibers for Higher Efficiency and Lower Cost Solar Cells) REVISED
T-00249	New donor 9-alkylthiophene-2,5-dione-9H-Fluorene and new acceptor alkylthieno[3.4-d]-1,3,2-dithiazole-1,3-disulfonyl for conjugated polymers
T-00272	Organic Solar Energy Harvesting Wireless Sensing Platform for Soil Monitoring
T-00290	Ring-protected organic chromophores for optoelectric applications
T-00370	Urea Treatment of Metal Transition Oxides as Safe Efficient Method for Low Cost and High-Performance Electrode in Solar Cells and Batteries
T-00396	Ozone Treatment of Silver Nanowires Electrodes for Improved Electrodes for Improved Electrode Stability
T-00424	An efficient method for Solar Charging of Batteries
T-00427	Development of Novel Instrumentation to Probe Nanoscale Charge Carrier Dynamics with High Temporal and Spatial Resolution

T-00435	Development of Breathing Sensor using Molecular Imprinted Filtering Layer in Selective Detection of Acetone and Ethanol as Diabetes and Alcohol Biomarker
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Book (1)

1. Organic Solar Cells: Materials, Devices, Interfaces, and Modeling, Edited by Qiquan Qiao, CRC Press, 2015, Print ISBN: 978-1-4822-2983-7, eBook ISBN: 978-1-4822-2984-4.

Peer reviewed journal papers (> 170)

1. Ahmed A. El-magrous, Jason D. Sternhagen, Gary Hatfield, **Qiquan Qiao***, Internet of Things Based weather-soil sensor station for precision agriculture, IEEE Xplore Digital Library, accepted, 2019.
2. Behzad Bahrami, Sally Mabrouk, Ashim Gurung, Khan Mamun Reza, Hytham Elbohy, Rajesh Pathak, Nirmal Adhikari, Ashish Dubey, Wenfeng Zhang, and **Qiquan Qiao***, Kinetic Monte Carlo Simulation of Perovskite Solar Cells to Probe Film Coverage and Thickness, Nano Energy, revision, 2019.
3. Rajesh Pathak, Ke Chen, Ashim Gurung, Khan Mamun Reza, Behzad Bahrami, Fan Wu, Ashraf Chaudhary, Nabin Ghimire, Bin Zhou, Wen-Hua Zhang, Yue Zhou, **Qiquan Qiao***, Ultrathin Bilayer of Graphite/SiO₂ as Solid Interface for Reviving Li Metal Anode, Advanced Energy Materials, accepted, 2019.
4. Rahman, Md Tawabur; Kabir, Md Faisal ; Gurung, Ashim; Reza, Khan; Pathak, Rajesh; Ghimire, Nabin; Baride, Aravind; Wang, Zhenqiang; Kumar, Mahesh; **Qiao, Qiquan***, Graphene Oxide - Silver Nanowire Nanocomposites for Enhanced Sensing of Hg²⁺, ACS Applied Nano Materials, accepted, 2019.
5. Liu, Qing, Xiang Chen, Wanpei Hu, Mengmeng Zhang, Liming Ding, Mingtai Wang, **Qiquan Qiao**, and Shangfeng Yang. "Beyond Metal Oxides: Introducing Low-Temperature Solution-Processed Ultrathin Layered Double Hydroxide Nanosheets into Polymer Solar Cells Toward Improved Electron Transport." Solar RRL 3, no. 2 (2019): 1800299.
6. Wang, Guiqiang*, Weinan Dong, Ashim Gurung, Ke Chen, Fan Wu, Qingquan He, Rajesh Pathak, and **Qiquan Qiao***. "Improving photovoltaic performance of carbon-based CsPbBr₃ perovskite solar cells by interfacial engineering using P3HT interlayer." Journal of Power Sources 432 (2019): 48-54.
7. Dondelinger, Matthew, Joel Swanson, Golibsho Nasymov, Christian Jahnke, **Qiquan Qiao**, James Wu, Christian Widener, Abu Md Numan-Al-Mobin, and Alevtina Smirnova. "Electrochemical Stability of Lithium Halide Electrolyte with Antiperovskite Crystal Structure." Electrochimica Acta (2019), accepted.
8. Ma, Dui, Jiantao Zai, Yan Wang, **Qiquan Qiao**, and Xuefeng Qian. "Photovoltaic Counter Electrodes: An Alternative Approach to Extend Light Absorption Spectra and Enhance Performance of Dye-Sensitized Solar Cells." ChemPlusChem 84, no. 3 (2019): 241-246.
9. Chen, Ke, Rajesh Pathak, Ashim Gurung, Ezaldeen A. Adhamash, Behzad Bahrami, Qingquan He, Hui Qiao et al. "Flower-shaped lithium nitride as a protective layer via facile plasma activation for stable lithium metal anodes." Energy Storage Materials 18, 389-396, 2019.
10. Elbohy, Hytham, Behzad Bahrami, Sally Mabrouk, Khan Mamun Reza, Ashim Gurung, Rajesh Pathak, Mao Liang, **Qiquan Qiao***, and Kai Zhu. "Tuning Hole Transport Layer Using Urea for High-Performance Perovskite Solar Cells." Advanced Functional Materials (2018): 1806740.
11. Kumar, Naveen, Ashish Dubey, Behzad Bahrami, S. Venkatesan, **Qiquan Qiao**, and Mukesh Kumar. "Origin of high carrier mobility and low residual stress in RF superimposed DC sputtered Al doped ZnO thin film for next generation flexible devices." Applied Surface Science 436 (2018): 477-485.
12. Kaur, Kulwinder, Kanika Arora, Bahrami Behzad, **Qiquan Qiao**, and Mukesh Kumar. "Nanoscale charge transport and local surface potential distribution to probe defect passivation in Ag doped Cu₂ZnSnS₄ absorbing layer." Nanotechnology 30, no. 6 (2018): 065706.

13. Fan Wu*, Rajesh Pathak, Ke Chen, Guiqiang Wang, Behzad Bahrami, Wen-Hua Zhang*, **Qiquan Qiao***, Inverted Current-Voltage Hysteresis in Perovskite Solar Cells, *ACS Energy Letters*, 3(10):2457-2460, 2018.
14. Ashim Gurung, **Qiquan Qiao***, Solar Charging Batteries: Advances, Challenges, and Opportunities, *Joule*, 2 (7), 1217-1230, 2018.
15. Rajesh Pathak, Ashim Gurung, Hytham Elbohy, Ke Chen, Khan Mamun Reza, Behzad Bahrami, Sally Mabrouk, Raju Ghimire, Matthew Hummel, Zhengrong Gu, Xiaoming Wang,* Yucheng Wu,* Yue Zhou* and **Qiquan Qiao***, Self-recovery in Li-metal hybrid lithium-ion batteries via WO₃ reduction, *Nanoscale*, 10, 15956-15966, 2018.
16. Yungen Wu, Zhihui Wang, Mao Liang*, Hua Cheng, Mengyuan Li, Liyuan Liu, Baiyue Wang, Jinhua Wu, Raju Prasad Ghimire, Xuda Wang, Zhe Sun*, Song Xue, **Qiquan Qiao***, Influence of Non-Fused Cores on the Photovoltaic Performance of Linear Triphenylamine-Based Hole-Transporting Materials for Perovskite Solar Cells, *ACS applied materials & interfaces*, 10 (21), pp 17883–17895, 2018.
17. Fan Wu*, Behzad Bahrami, Ke Chen, Sally Mabrouk, Rajesh Pathak, Yanhua Tong, Xiaoyi Li, Tiansheng Zhang, Ronghua Jian, and **Qiquan Qiao***, Bias-Dependent Normal and Inverted J–V Hysteresis in Perovskite Solar Cells, *ACS Applied Materials & Interfaces*, 10 (30), pp 25604–25613, 2018.
18. Fan Wu*, **Qiquan Qiao**, Behzad Bahrami, Ke Chen, Rajesh Pathak, Sally Mabrouk, Yanhua Tong, Xiaoyi Li, Tiansheng Zhang, Ronghua Jian, Comparison of performance and optoelectronic processes in ZnO and TiO₂ nanorod array-based hybrid solar cells, *Applied Surface Science* 456, 124-132, 2018.
19. Dui Ma, Jiantao Zai*, Yan Wang, **Qiquan Qiao***, Xuefeng Qian*, Fe_{1-x}CoxS₂ Solid Solutions with Tunable Energy Structures to Enhance the Performance of Triiodide Reduction in Dye-Sensitized Solar Cells, *ChemNanoMat*, accepted, 2018.
20. P. S. Chandrasekhar, Ashish Dubey, Khan Mamun Reza, MD Nazmul Hasan, Behzad Bahrami, Vamsi K. Komarala , James D. Hoefelmeyer, Qingquan He, Fan Wu, Hui Qiao, Wen-Hua Zhang* and **Qiquan Qiao***, Higher Efficiency Perovskite Solar Cells Using Au@SiO₂ Core-Shell Nanoparticles, *Sustainable Energy & Fuels*, accepted, 2018.
21. Deepak Thrithamarassery Gangadharan, Yujie Han, Ashish Dubey, Xinyu Gao, Baoquan Sun, **Qiquan Qiao**, Ricardo Izquierdo, Dongling Ma, Aromatic Alkylammonium Spacer Cations for Efficient Two-Dimensional Perovskite Solar Cells with Enhanced Moisture and Thermal Stability, *Solar RRL*, 2: 1700215, doi:10.1002/solr.201700215, 2018. Highlighted in *Advanced Science News*, <https://www.advancedsciencenews.com/perovskite-stability-gets-a-2d-solution/>
22. Gopalan Sai-Anand, Ashish Dubey, Anantha-Iyengar Gopalan, Swaminathan Venkatesan, Sujanya Ruban, Khan Mamun Reza, Jebum Choi, Kripal Singh Lakhi, Binrui Xue, **Qiquan Qiao**, Ajayan Vinu, Additive assisted morphological optimization of photoactive layer in polymer solar cells, *Solar Energy Materials and Solar Cells*, 182, 2018, 246–254.
23. Fan Wu, **Qiquan Qiao**, Behzad Bahrami, Ke Chen, Rajesh Pathak, Yanhua Tong, Xiaoyi Li, Tiansheng Zhang and Ronghua Jian, Solution-Processed All-Oxide Bulk Heterojunction Solar Cells Based on CuO Nanorod Array and TiO₂ Nanocrystals, *Nanotechnology*, 29(21), 215403, 2018.
24. Sally Mabrouk, Mengmeng Zhang, Zhihui Wang, Mao Liang, Behzad Bahrami, Yungen Wu, Jinhua Wu, **Qiquan Qiao***, Shangfeng Yang, Dithieno[3,2-b:2',3'-d]pyrrole-based Hole Transport Materials for Perovskite Solar Cells with Efficiencies over 18%, *Journal of Materials Chemistry A*, 6, 7950-7958, 2018.
25. Md Faisal Kabir, Md Tawabur Rahman, Ashim Gurung, and **Qiquan Qiao***, Electrochemical Phosphate Sensors using Silver Nanowires Treated Screen Printed Electrodes, *IEEE Sensors Journal*, 18 (9), 3480-3485, 2018.
26. Ashish Dubey, Nirmal Adhikari, Sally Mabrouk, Fan Wu, Ke Chen, Shangfeng Yang and **Qiquan Qiao***, Strategic Review on Processing Routes towards Highly Efficient Perovskite Solar Cells, *Journal of Materials Chemistry A*, 6, 2406-2431, 2018.
27. Hui Qiao, Rongrong Li, Yuting Yu, Zhaokang Xia, Lijun Wang, Qufu Wei, Ke Chen, **Qiquan Qiao***, Fabrication of PANI-coated ZnFe₂O₄ nanofibers with enhanced electrochemical performance for energy storage, *Electrochimica Acta*, 273, 2018, 282-288.

28. Mahadev N. Kumbar, Madivalagouda S. Sannaikar, Saba Kauser J. Shaikh, Atulkumar A. Kamble, Manjunath N. Wari, Sanjeev R. Inamdar, **Qiquan Qiao**, Bhavya N. Revanna, Mahendra Madegowda, Jagadeesh P. Dasappa, Ravindra R. Kamble, Synthesis, Photophysical and Computational Study of Novel Coumarin-based Organic Dyes, *Photochemistry and Photobiology*, accepted, *94*(2), 261-276, 2018.
29. Binrui Xu, Gopalan Sai-Anand, Anantha-Iyengar Gopalan, **Qiquan Qiao**, Shin-Won Kang, Improving Photovoltaic Properties of P3HT:IC60BA Through the Incorporation of Small Molecule, *Polymers*, *MDPI*, *10*(2), 121, 2018.
30. Wenjin Yue, Feiyu Wei, Yang Li, Lian Zhang, Qun Zhang, **Qiquan Qiao***, Hui Qiao*, Hierarchical CuInS₂ synthesized with the induction of histidine for polymer/CuInS₂ solar cells, *Materials Science in Semiconductor Processing*, *76*, 14-24, 2018.
31. Naveen Kumar, Ashish Dubey, Behzad Bahrami, S. Venkatesan, **Qiquan Qiao**, Mukesh Kumar, Origin of high carrier mobility and low residual stress in RF superimposed DC sputtered Al doped ZnO thin film for next generation flexible devices, *Applied Surface Science*, *436*, 477-485, 2018.
32. Hytham Elbohy, Khan Mamun Reza, Salem Abdulkarim, **Qiquan Qiao***, Creation of Oxygen Vacancy to Activate WO₃ for Higher Efficiency Dye-Sensitized Solar Cells, *Sustainable Energy & Fuels*, *2*, 403-412, 2018.
33. Khan Mamun Reza, Sally Mabrouk, **Qiquan Qiao***, A Review on Tailoring PEDOT: PSS Layer for Improved Performance of Perovskite Solar Cells, *Proceedings of the Nature Research Society*, *2* (1), 02004, 2018.
34. Sally Mabrouk, Behzad Bahrami, Ashim Gurung, Nirmal Adhikari, Ashish Dubey, **Qiquan Qiao***, Higher Efficiency Perovskite Solar Cells Using Additives of LiI, LiTFSI and BMImI in the PbI₂ Precursor, *Sustainable Energy & Fuels*, *1*, 2162-2171, 2017.
35. Bjorn Vaagensmith, Khan Mamun Reza, MD Nazmul Hasan, Hytham Elbohy, Nirmal Adhikari, Ashish Dubey, Nick Kantack, Eman Gaml, **Qiquan Qiao***, Environmentally Friendly Plasma Treated PEDOT:PSS as Electrodes for ITO-free Perovskite Solar Cells, *ACS Applied Materials & Interfaces*, *9* (41), 35861-35870, 2017.
36. Pengcheng Zhou, Zhimin Fang, Weiran Zhou, **Qiquan Qiao**, Mingtai Wang, Tao Chen, Shangfeng Yang, Non-Conjugated Polymer Poly(vinylpyrrolidone) as an Efficient Interlayer Promoting Electron Transport for Perovskite Solar Cells, *ACS Applied Materials & Interfaces*, *9* (38), 32957-32964, 2017.
37. Salem Abdulkarim, Hytham Elbohy, Nirmal Adhikari, Md Nazmul Hasan, Wenjin Yue, **Qiquan Qiao***, Urea Treated Electrolytes for Higher Efficiency Dye-Sensitized Solar Cells, *Journal of Physical Chemistry C*, *121*, 39, 21225-21230, 2017.
38. Shoushuang Huang, Dui Ma, ZhangJun Hu, Qingquan He, Jiantao Zai, Dayong Chen, Huai Sun, Zhiwen Chen, **Qiquan Qiao**, Minghong Wu, Xuefeng Qian, Synergistically Enhanced Electrochemical Performance of Ni₃S₄-PtX (X=Fe, Ni) Heteronanorods as Heterogeneous Catalysts in Dye Sensitized Solar Cells, *ACS Applied Materials & Interfaces*, *9* (33), 27607-27617, 2017.
39. Lakkanna S. Chougala, Jagadish S. Kadadevarmath, Atulkumar A. Kamble, Praveen K. Bayannavar, Mahantesh S. Yatnatti, Ravi K. Linganagoudar, Nirupama J. M., Ravindra R. Kamble, **Qiquan Qiao**, Effect of TiO₂ nanoparticles on newly synthesized phenothiazine derivative-CPTA dye and its applications as dye sensitized solar cell, *Journal of Molecular Liquids*, *244*, 97-102, 2017.
40. Roya Naderi, Ashim Gurung, Zhengping Zhou, Geetha Varnekar, Ke Chen, Jiantao Zai, Xuefeng Qian, **Qiquan Qiao***, Activation of passive nano-fillers in composite polymer electrolyte for higher performance lithium ion batteries, *Advanced Sustainable Systems*, *1*, 8, 1700043, 2017.
41. Wenjin Yue, Feiyu Wei, Chenbin He, Dandan Wu, Nengwen Tang, **Qiquan Qiao***, L-Cysteine assisted-synthesis of 3D In₂S₃ for 3D CuInS₂ and its application in hybrid solar cells, *RSC Advance*, *7*, 37578-37587, 2017.
42. J. N. Reiners, J. E. Held, **Q. Qiao**, K. M. Reza, and D. W. Brake, Lysine bioavailability among two lipid-coated lysine products after exposure to silage, *Translational Animal Science*, accepted, 2017.
43. P. S. Chandrasekhar, Hytham Elbohy, Bjorn Vaggensmith, Ashish Dubey, Khan Mamun Reza, Vamsi K. Komarala and **Qiquan Qiao***, Plasmonic Silver Nanowires for Higher Efficiency Dye-Sensitized Solar Cells, *Materials Today Energy*, *5*, 237-242, 2017.

44. Shelton J. P. Varapragasam, Choumini Balasanthiran, Ashim Gurung, **Qiquan Qiao**, Robert M. Rioux, James D. Hoefelmeyer, Kirkendall Growth of Hollow Mn₃O₄ Nanoparticles Upon Galvanic Reaction of MnO with Cu²⁺ and Evaluation as Anode for Lithium-Ion Batteries, *Journal of Physical Chemistry C* 121 (21), 11089-11099.
45. Zhengping Zhou, Hua Zhang, Yan Zhou, Hui Qiao, Ashim Gurung, Roya Naderi, Hytham Elbohy, Alevtina L. Smirnova, Huitian Lu, Shuiliang Chen, and **Qiquan Qiao***, Binder Free Hierarchical Mesoporous Carbon Foam for High Performance Lithium Ion Battery, *Scientific Reports*, 7, 1440, 2017.
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Book Chapters (10)

1. Tingting Xu, Qiquan Qiao, "Organic Photovoltaics: Basic Concept and Device Physics", in the book of "Encyclopedia of Nanotechnology 2nd edition", Springer-Verlag, 2014.
2. Ashish Dubey, Parveen Saini, Qiquan Qiao, Conjugated Polymers-Based Blends, Composites and Copolymers for Photovoltaics, in the book of Conducting Polymer Based Blends and Nanocomposites: Synthesis, Properties, and Applications, Wiley Scrivener Publishing LLC, 2014.
3. Prajwal Adhikary and Qiquan Qiao, Design Considerations for Efficient and Stable Polymer Solar Cells, in *Solar Cell Nanotechnology* (eds A. Tiwari, R. Boukherroub and M. Sharon), John Wiley & Sons, Inc., Hoboken, NJ, USA. doi: 10.1002/9781118845721.ch1, Chapter 1, page 1-40, Print ISBN: 9781118686256 and Online ISBN: 9781118845721, 2013.
4. Purna P. Maharjan and Qiquan Qiao, "Inverted organic solar cells" in the book of "Energy Harvesting with Functional Materials and Microsystems", editors: Madhu Bhaskaran, Sharath Sriram, Krzysztof Iniewski, ISBN 9781466587236, publisher: CRC Press, Published: November 12, 2013.
5. Ashish Dubey and Qiquan Qiao, "Metal oxide nanocrystals and their properties for application in solar cells" in the book of "Handbook of Nanomaterials Properties", Editors: Bharat Bhushan, Dan Luo, Scott R. Schricker, Wolfgang Sigmund, Stefan Zauscher, SBN 978-3-642-31106-2, publisher: Springer, 2013.
6. Ashish Dubey and Qiquan Qiao, "Chap 6 - Hybrid polymer-inorganic solar cells" in the book of "Polymers for Energy Storage and Conversion", editor: Vikas Mittal, publisher: John Wiley USA and Scrivener Publishing USA, ISBN: 978-1-118-34454-5, Page 163-198, 2013.
7. Swaminathan Venkatesan and Qiquan Qiao, "Nanoscale phase separation and device engineering in polymer solar cells", in the book of "Novel Advances in Microsystems Technologies and their Applications", Editors: Laurent A. Francis, Krzysztof Iniewski ISBN 9781466560666, publisher: Taylor & Francis, 2013
8. James.T. McLeskey, Jr. and Qiquan Qiao, "Nanostructured Organic Solar Cells" in the book of "Nanotechnology for Photovoltaics", ed. Loucas Tsakalacos, CRC Press, Chap. 6, 2010, published March 25, 2010, Page 147-186, ISBN-13: 978-1420076745.
9. Tingting Xu, Qiquan Qiao, "Organic Photovoltaics: Basic Concept and Device Physics", in the book of "Encyclopedia of Nanotechnology", Section editor Yabing Qi, Springer-Verlag, 2011
10. Qiquan Qiao, "Carbon Nanostructures as Low Cost Counter Electrode for Dye-Sensitized Solar Cells" in *Solar Cells - Dye-Sensitized Devices*, editor Leonid Kosyachenko, ISBN 979-953-307-191-5, Chap 20, page 457-470, InTech, 2011.

Invited Talks, Contributed Presentations, Posters and Seminars (> 200)

1. Qiao, Q., Department Seminar, "Simple and Efficient Combination of Perovskite Solar Cells with Lithium Ion Battery," Texas Tech University, Lubbock, TX, United States. (September 7, 2018).
2. Qiao, Q., 22nd International Conference on Photochemical Conversion and Storage of Solar Energy, "Simple and Efficient Combination of Perovskite Solar Cells with Lithium Ion Battery," Hefei, China. (July 30, 2018).

3. Qiao, Q., 3rd Canada International Conference on Energy, Materials and Photonics (EMP 2018), "Efficient Solar-Rechargeable Lithium Ion Battery Energy Storage," INRS, Montreal, Canada. (July 10, 2018).
4. Qiao, Q., Department Seminar, "Solar-Rechargeable Lithium Ion Battery Energy Storage," Beijing Normal University, Beijing, China. (June 28, 2018).
5. Qiao, Q., Department Seminar, "Solar-Rechargeable Lithium Ion Battery Energy Storage," Northwestern Polytechnical University, Xian, China. (June 27, 2018).
6. Qiao, Q., Department Seminar, "Solar-Rechargeable Lithium Ion Battery Energy Storage," Shaanxi Normal University, Xian, China. (June 25, 2018).
7. Qiao, Q., International Conference on Eco-Textiles, "Room Temperature, Air Crystallized Perovskite Film for High Performance Solar Cells," Jiangnan University, Wuxi, China. (June 23, 2018).
8. Qiao, Q., Department Seminar, "Solar-Rechargeable Lithium Ion Battery Energy Storage," Soochow University, Suzhou. (June 22, 2018).
9. Qiao, Q., Department Seminar, "Solar-Rechargeable Lithium Ion Battery Energy Storage," Shenzhen University, Shenzhen, China. (June 20, 2018).
10. Qiao, Q., Sino-US Symposium on Frontiers of Chemistry, 2018 TJUT, "Solar-Rechargeable Lithium Ion Battery Energy Storage," Tianjin University of Technology, Tianjin, China. (June 19, 2018).
11. Qiao, Q., Department Seminar, "Lithium Ion Battery and its Integration into Solar Cells," Huzhou University, Huzhou. (May 7, 2018).
12. Qiao, Q., Department Seminar, "Lithium Ion Battery and its Integration into Solar Cells," Hefei University of Technology, Hefei, China. (April 26, 2018).
13. Qiao, Q., Department Seminar, "Lithium Ion Battery and its Integration into Solar Cells," Sichuan Research Center of New Materials, Chengdu, China. (April 24, 2018).
14. Qiao, Q., Department Seminar, "Lithium Ion Battery and its Integration into Solar Cells," Taiyuan University of Technology, Taiyuan. (April 23, 2018).
15. Qiquan Qiao, Efficient Solar-Rechargeable Lithium Ion Battery and Precision Agriculture Sensing System, August 9, 2017, 3M Campus, St Paul, MN.
16. Qiquan (Quinn) Qiao, Lithium Ion Battery and its Integration into Solar Cells, Jiangnan University, Wuxi, Jiangsu, June 29, 2017.
17. Qiquan (Quinn) Qiao, Nanofibers for Dye-sensitized Solar Cells, Anhui Polytechnic University, June 27, 2017, Wuhu, Anhui, China.
18. Qiquan (Quinn) Qiao, Precision Agricultural Sensing Systems, Anhui Agricultural University, Hefei, Anhui, China, June 26, 2017.
19. Qiquan (Quinn) Qiao, Efficient Solar-Rechargeable Lithium Ion Battery Energy Storage, Nankai University, Tianjin, China, June 23, 2017.
20. Qiquan (Quinn) Qiao, Perovskite Solar Cells, Tianjin University of Technology, June 23, 2017, Tianjin, China.
21. Qiquan (Quinn) Qiao, Efficient Solar-Rechargeable Lithium Ion Battery as Energy Storage, Henan Polytechnic University, Jiaozuo, Henan, June 22, 2017.
22. Qiquan (Quinn) Qiao, Efficient Solar-Rechargeable Lithium Ion Battery as Energy Storage, 2017 Nano-Micro Conference, June 20, 2017, Shanghai, China.
23. Qiquan (Quinn) Qiao, Precision Agricultural Sensing Systems, South China Agricultural University, Guangzhou, China, June 19, 2017.
24. Qiquan Qiao, Nanoscale study of Perovskite solar cells for efficient charge transport, Symposium 26: Advances in Materials and Technology for Perovskite and Next Generation Solar Cells, May 25, 2017, Waikoloa, HI.
25. Bigyan Khanal, Behzad Bahrami, Huitian Lu, Qiquan Qiao, Modelling of solid electrolyte interface (SEI) layer of lithium-ion batteries using kinetic Monte Carlo approach, ISERC 2017, Pittsburgh, May 21-23, 2017.
26. Qiquan Qiao, Lab activity: solar cells. USD Chemistry/ACS Sioux Valley Section Chemistry Workshop at Nebraska Indian Community College (NICC), April 7, 2017 South Sioux City, NE.

27. Khan Mamun Reza, Nirmal Adhikari, Qiquan Qiao, Preheating Assisted Deposition of Cesium Lead Halide Perovskite for Improved Efficiency for Solar Cells, 2017 MRS Spring Meeting, April 17 – 21, 2017, Phoenix, Arizona
28. Md Saleh Akram Bhuiyan, Qiquan Qiao, Molecular imprinted Graphene based portable gas sensor to detect diabetes and alcohol level by tracking human breathing molecule, 2017 MRS Spring Meeting, April 17 – 21, 2017, Phoenix, Arizona.
29. Upendra Neupane, Behzad Bahrami, Matt Biesecker, and Qiquan Qiao, Kinetic Monte Carlo Modeling on Organic Solar Cells: Domain Size, Donor-Acceptor Ratio and Thickness, 2017 MRS Spring Meeting, April 17 – 21, 2017, Phoenix, Arizona.
30. Bigyan Khanal, Behzad Bahrami, Huitian Lu, Qiquan Qiao, Modeling of the Solid Electrolyte Interface (SEI) Layer to Study Capacity Fade, Aging and Cycle Life of Lithium Ion Batteries Using Kinetic Monte Carlo Approach, 2017 MRS Spring Meeting, April 17 – 21, 2017, Phoenix, Arizona.
31. Qiquan Qiao, Efficient Solar-Rechargeable Lithium Ion Battery Energy Storage, East China University of Science and Technology, August 4, 2016, Shanghai, China, Invited Talk.
32. Qiquan Qiao, Simultaneously Combined Photovoltaics and Batteries, Anhui Normal University, August 1, 2016, Wuhu, Anhui, China, Invited Talk.
33. Qiquan Qiao, Nanoscale characterization of high performance Perovskite solar cells for efficient charge transport, 4th Annual International Conference on Material Science and Engineering (ICMSE2016), June 18, 2015, Guangzhou, Guangdong, China. Keynote speaker.
34. Qiquan Qiao, Perovskite Solar Cells: Air Processing and Moisture Effects, Hefei Institute of Plasma Physics, Invited Talk, June 20, 2016, Hefei, Anhui, China.
35. Qiquan Qiao, Perovskite solar cells, Anhui Polytechnic University, Invited Talk, June 23, 2016, Wuhu, Anhui, China.
36. Qiquan Qiao, Charge transport in high performance Perovskite solar cells, Shanghai Jiaotong University, Invited Talk, June 16, 2016, Shanghai, China.
37. Nirmal Adhikari, Md Nazmul Hasan, Ashish Dubey, Anastasiia Iefonova, Behzad Bahrami, Bjorn Vaagensmith, Mukesh Kumar, **Qiquan Qiao**, Nanoscale characterization of high performance Perovskite solar cell in controlled humidity for efficient charge transport, 2016 International Electro/Information Technology Conference (2016 IEEE EIT), Grand Forks, North Dakota, May 19-21, 2016.
38. Sally Mabrouk, Nirmal Adhikari, Ashish Dubey, Md Nazmul Hasan, **Qiquan Qiao**, Transparent conducting Polyaniline as an alternate hole transport material for p-i-n perovskite solar cell, 2016 International Electro/Information Technology Conference (2016 IEEE EIT), Grand Forks, North Dakota, May 19-21, 2016.
39. Ashish Dubey, Eman Gaml, Nirmal Adhikari, Khan Reza, Hamdy zeyada, **Qiquan Qiao**, Engineering of ambient processing conditions to control solvent induced intermediate phase in mixed halide organic-inorganic perovskite ($\text{CH}_3\text{NH}_3\text{PbI}_3\text{-xCl}_x$) film for efficient planar perovskite solar cells, 2016 International Electro/Information Technology Conference (2016 IEEE EIT), Grand Forks, North Dakota, May 19-21, 2016.
40. Jiawei Gong, Sumathy Krishnan, Zhengping Zhou, **Qiquan Qiao**, Effect of Graphene Nanoplatelet Thickness on Electrochemical Performance of Dye-Sensitized Solar Cell, 2016 International Electro/Information Technology Conference (2016 IEEE EIT), Grand Forks, North Dakota, May 19-21, 2016.
41. Hytham Elbohy, **Qiquan Qiao**, Urea treated WO_3 and SnO_2 as cost effective and efficient counter electrodes of dye sensitized solar cells 2016 International Electro/Information Technology Conference (2016 IEEE EIT), Grand Forks, North Dakota, May 19-21, 2016.
42. Anastasiia Iefanova, Devendra Khatiwada, Nirmal Adhikari, Ashish Dubey, **Qiquan Qiao**, Lead Free $\text{CH}_3\text{NH}_3\text{SnI}_3$ Perovskite Thin-Film with p-Type Semiconducting Nature and Metal Like Conductivity, 2016 MRS Spring Meeting & Exhibit, March 28-April 1, 2016, Phoenix, Arizona.
43. Ashish Dubey, Nirmal Adhikari and **Qiquan Qiao**, Room temperature, air crystallized single halide perovskite nanorods for efficient planar perovskite solar cells, 2016 MRS Spring Meeting & Exhibit, March 28-April 1, 2016, Phoenix, Arizona.

44. Sally Mabrouk, Nirmal Adhikari, Ashish Dubey, Md Nazmul Hassan, **Qiquan Qiao**, High performance perovskite solar cells by doping PbI₂ precursor in sequential deposition method, 2016 MRS Spring Meeting & Exhibit, March 28-April 1, 2016, Phoenix, Arizona.
45. Roya Naderi, Ashim Gurung, **Qiquan Qiao**, Reduction of PVdF-HFP penetration into polyethylene (PE) separator in Lithium ion batteries using low molecular weight ionic conductors, 2016 MRS Spring Meeting & Exhibit, March 28-April 1, 2016, Phoenix, Arizona.
46. Bjorn Vaagensmith, Eman Gaml, Khan Mamun Reza, Nick Kantack, Ashish Dubey, **Qiquan Qiao**, Acid Free Method for Conductivity Enhancement in PEDOT:PSS Thin Films as Flexible Transparent Electrodes in Perovskite Solar cells, 2016 MRS Spring Meeting & Exhibit, March 28-April 1, 2016, Phoenix, Arizona.
47. Ashim Gurung, Geetha Varnekar, Bjorn Vaagensmith, Roya Naderi, Hytham Elbohy, **Qiquan Qiao**, "Engineering of Photo-Rechargeable Storage Device - Solar Battery", 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute, **invited talk**
48. Nirmal Adhikari, Ashish Dubey, Md. Hasan Nazmul, Khan Mamun Reza, Behzad Bahrami, Qiquan Qiao, "Nanoscale study of Perovskite solar cells for efficient charge transport", 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute, **invited talk**
49. **Qiquan Qiao**, Ashish Dubey, Nirmal Adhikari, and Muhammad Hassan Sayyad "Measurements of Solar Cell Energy Conversion Efficiency and Quantum Efficiency" 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute, **invited talk**
50. Muhammad Hassan Sayyad and **Qiquan Qiao** "Next generation efficient solar energy harvesting technologies: Challenges and Opportunities" 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute.
51. Nazia Nasr, Muhammad Hassan Sayyad, Ramshah Ahmad, Sarah Sajjad, Syed Afaq Ali Shah and **Qiquan Qiao** "Doped photoanode for higher efficiency of DSSCs" 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute
52. Sarrah Sajjad, Muhammad Hassan Sayyad, Syed Afaq Ali Shah, Ramshah Ahmed Toor, Nazia Nasr and **Qiquan Qiao**, "Synthesis of quantum dots for dye-sensitized solar cells", 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute
53. Syed Afaq Ali Shah, Muhammad Hassan Sayyad, Nazia Nasr, Ramshah Ahmad, Sarah Sajjad and **Qiquan Qiao**, "Photovoltaic and Impedance Spectroscopic Study of Broad Absorbing Organic Dye for Higher Efficiency of DSSC." 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute
54. Syed Afaq Ali Shah, Muhammad Hassan Sayyad, Nazia Nasr, Ramshah Ahmad, Sarah Sajjad and **Qiquan Qiao** " Photovoltaic and impedance spectroscopic studies on broad absorbing metallic and organic dyes based DSSCs." 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute
55. Hytham Elbohy, Nazia Nasr, Ramshah Ahmed, Syed Afaq A. Shah, M. Hassan Sayyad and **Qiquan Qiao**, 'Vanadium (V) Oxide (V₂O₅) as charge recombination blocking layer to improve the dye sensitized solar cell efficiency" 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute
56. Ramshah Ahmed Toor, Muhammad Hassan Sayyad, Syed Afaq Ali Shah, Sarah Sajjad, Nazia Nasr and **Qiquan Qiao** "Study of additive on the performance enhancement of DSSC" 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute
57. Ramshah Ahmed Toor, Fatima Ijaz, Munawar Ali Munawar, Muhammad Hassan Sayyad, Nazia Nasr, Syed Afaq Ali Shah, Sarah Sajjad and **Qiquan Qiao** "Novel Organic Azo Dye for stable Dye-Sensitized Solar Cell" 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies (ICONGET2016), 01-03 APRIL, 2016, held at the GIK Institute

58. Qiquan Qiao, Nanofibers for Photovoltaics, International Symposium on Functional Fibrous Material 2015 (ISFFM2015), Jiangnan University, Dec 14-16, 2015, Wuxi, Jiangsu, China, **invited talk**.
59. Qiquan Qiao, Perovskite Solar Cells, Shanghai Jiaotong University, December 9, 2015, **invited seminar**.
60. Nirmal Adhikari, Ashish Dubey, Devendra Khatiwada, Abu Farzan Mitul, Lal Mohammad, Mukesh Kumar, Qiquan Qiao, Effect of humidity on electronic grain boundary properties of Perovskite solar cells using nanoscale characterization, 2015 MRS Fall Meeting & Exhibit, November 29-December 4, 2015, Boston, Massachusetts. Oral presentation.
61. Md Saleh Akram Bhuiyan, Abiral Baniya, Huitian Lu, Qiquan Qiao, Development of Graphene based Wellness Sensors, 3rd Annual Sanford -SDSU Biomedical Research Symposium, Sioux Falls, South Dakota, Nov 10, 2015.
62. Ashim Gurung and Qiquan Qiao, Simultaneous Energy Conversion and Storage using Combined Solar Cells and Lithium-ion Batteries Mini symposium on Power & Power Electronics, Prairie Room, North Dakota State University, Fargo, ND, October 28, 2015.
63. Qiquan Qiao, Center for Advanced Photovoltaics and Sustainable Energy Systems, John Deere, Fargo, ND, October 15, 2015.
64. Qiquan Qiao, Perovskite solar cells, ACS Sioux Valley Undergraduate Research Symposium, Sept 26, 2015, Sioux Falls. **Keynote talk**
65. Abu Farzan Mitul, Lal Mohammad, Nirmal Adhikari, Ashish Dubey, Devendra Khatiwada, Bjorn Vaagensmith, Sudhan Sigdel and Qiquan Qiao, Optimization of interfacial layer for double and triple junction polymer solar cell, Organic Photonics + Electronics 2015 -Part of SPIE Optics + Photonics, San Diego Convention Center, San Diego, CA, United States, 9th - 13th August 2015.
66. Rajab Suliman, Abu Farzan Mitul, Lal Mohammad, Yunpeng Pan and Qiquan Qiao, Modelling of bulk heterojunction polymer solar cell based on response surface methodology, Organic Photonics + Electronics 2015 -Part of SPIE Optics + Photonics, San Diego Convention Center, San Diego, CA, United States, 9th - 13th August 2015.
67. Qiquan Qiao, Simultaneous Energy Conversion and Storage using Combined Solar Cells and Lithium-ion Batteries, NASA GRC EPSCoR/OAI Power and Energy Forum, July 23, 2015, Ohio Aerospace Institute (OAI), Cleveland, OH. **Invited talk**
68. Zhengping Zhou and Qiquan Qiao, Novel Carbon Nanofibers for Dye-Sensitized Solar Cells (DSSCs), 2015 GIKI-SDSU International Seminar on Alternative Energy Solutions for Pakistan. May 2nd, 2015. **Invited talk**.
69. Renewable Energy Research at South Dakota State University, Ashish Dubey, Nirmal Adhikari, Swaminathan Venkatesan, Reinaldo Tonkoski, Qiquan Qiao, The first renewable Energy Day at the Capital in South Dakota, Feb 17, 2015.
70. Sudhan Sigdel, Ashish Dubey, Hytham Elbony, Alex Aboagye, David Galipeau, Lifeng Zhang, Hao Fong, and Qiquan Qiao, Dye-Sensitized Solar Cells Based on Spray-coated Carbon Nanofibers/TiO₂ Nanoparticles Composite Counter Electrodes, 2014 MRS Fall Meeting & Exhibit, November 30 - December 5, 2014, Boston, Massachusetts
71. Nirmal Adhikari, Ashish Dubey, Swaminathan Venkatesan, Devendra Khatiwada, Sudhan Sigdel, Qiquan Qiao, Nanoscale characterization of energetically favorable offsets of interfaces and charge transport in Perovskite solar cells, 2014 MRS Fall Meeting & Exhibit, November 30 - December 5, 2014, Boston, Massachusetts
72. Energy Sustainability at South Dakota State University (Research directions), Ashish Dubey, Nirmal Adhikari, Swaminathan Venkatesan, Qiquan Qiao, 2014 MRS Fall Meeting & Exhibit, November 30 - December 5, 2014, Boston, Massachusetts.
73. Ashish Dubey, Nirmal Adhikari, Swaminathan Venkatesan, Devendra Khatiwada, Qiquan Qiao, Low band gap PDPP3T polymer as hole transport material in perovskite based solar cells, 2014 MRS Fall Meeting & Exhibit, November 30 - December 5, 2014, Boston, Massachusetts
74. Qiquan Qiao, Dye Sensitized Solar Cells, IGERT Renewable Energy Symposium, Sioux Falls, South Dakota, October 4, 2014. **Invited talk**

75. Swaminathan Venkatesan, Evan C Ngo, Jihua Chen, Ashish Dubey, and Qiquan Qiao, Critical role of domain purity and interfaces for efficient charge transport in polymer solar cells, Kentucky Organic Electronic Materials Symposium, Lexington, Kentucky, June 22-24, 2014
76. Nirmal Adhikari, Ashish Dubey, Swaminathan Venkatesan, Devendra Khatiwada, Sudhan Sigdel, Qiquan Qiao, Nanoscale characterization of energetically favorable offsets of interfaces and charge transport in perovskite solar cells, Kentucky Organic Electronic Materials Symposium, Lexington, Kentucky, June 22-24, 2014
77. Ashish Dubey, Nirmal Adhikari, Swaminathan Venkatesan, Devendra Khatiwada, Qiquan Qiao, Low band gap PDPP3T polymer as hole transport material in perovskite based solar cells, Kentucky Organic Electronic Materials Symposium, Lexington, Kentucky, June 22-24, 2014
78. Bjorn Vaagensmith, Qiquan Qiao, Enhanced stability of semi-transparent silver nanowire electrodes though ZnO encapsulation, Kentucky Organic Electronic Materials Symposium, Lexington, Kentucky, June 22-24, 2014
79. Abu Farzan Mitul, Lal Mohammad, Swaminathan Venkatesan, Nirmal Adhikari, Ashish Dubey, Devendra Khatiwada, Qi Wang and Qiquan Qiao, A novel low temperature solution processed interfacial layer for double and tripple junction polymer solar cell, Kentucky Organic Electronic Materials Symposium, Lexington, Kentucky, June 22-24, 2014.
80. Qiquan Qiao, Graduate program at South Dakota State University, Hefei, Anhui, China, July 9, 2014. **Invited seminar**
81. Qiquan Qiao, Development of Cost Effective Solar Cells, University of Science and Technology of China, Hefei, Anhui, China, July 15, 2014. **Invited seminar**
82. Qiquan Qiao, Development of Cost Effective Solar Cells, Changchun Institute of Applied Chemistry, Changchun, Jilin, China, July 11, 2014. **Invited seminar.**
83. Qiquan Qiao, Development of Cost Effective Solar Cells, Jilin University, Jilin, Changchun, China, July 10, 2014. **Invited seminar.**
84. Qiquan Qiao, Engineering of active layer nanomorphology for improved charge transport in polymer solar cells, Hefei Institutes of Physical Science, The Chinese Academy of Science, Hefei, Anhui, China, June 25, 2014. **Invited talk.**
85. Qiquan Qiao, Development of Cost Effective Organic Solar Cells, International Nanophotonics and Nanoenergy Conference (INPEC), Ewha Womans University (EWU), Seoul, Korea, July 1st to July 3rd, 2014, **Invited talk.**
86. Qiquan Qiao, Engineering of active layer nanomorphology for improved charge transport in polymer solar cells, Seminar at INRS (Institut national de la recherche scientifique), May 26, 2014, Montreal, Canada.
87. Qiquan Qiao, Polymer Solar Cells, Photonics North 2014, Montreal, Canada, May 28-30, 2014, **invited talk and session chair.**
88. Ashish Dubey, Swaminathan Venkatesan, Shaopeng Gu, Nirmal Adhikari, Cheng Zhang, Qiquan Qiao, Ring protected chromophore with high open-circuit voltage for solution processed organic solar cells, MRS Spring Meeting, 2014.
89. Qiquan Qiao, Graduate program at South Dakota State University and Internship Opportunities for Undergraduates, International Symposium on DSSCs & Industrial Exhibition, Faculty of Engineering Sciences, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Pakistan, December 13-14, 2013. **Plenary talk**
90. Qiquan Qiao, New Photoanode made of TiO₂ nanofibers and nanoparticles for high efficiency dye-sensitized solar cells, International Symposium on DSSCs & Industrial Exhibition, Faculty of Engineering Sciences, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Pakistan, December 13-14, 2013. **Invited talk**
91. Qiquan Qiao, Enhanced performance in dye-sensitized solar cells via carbonnanofibers - platinum composite counter electrodes, International Symposium on DSSCs & Industrial Exhibition, Faculty of Engineering Sciences, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Pakistan, December 13-14, 2013. **Invited talk**
92. Qiquan Qiao, Vanadium Oxide as new Charge Recombination Blocking Layer for High Efficiency Dye-Sensitized Solar Cells, International Symposium on DSSCs & Industrial Exhibition, Faculty of

- Engineering Sciences, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Pakistan, December 13-14, 2013. **Invited talk.**
93. Olusegun Adebajo, Purna P. Maharjan, Qiliang Chen, Lianjie Zhang & Qiquan Qiao, A new conjugated copolymer based on dodecyloxybenzothiadiazole for application in photovoltaic solar cells, 23rd National Science Foundation Experimental Program to Stimulate Competitive Research (NSF EPSCoR) Conference to be held in Nashville, Tenn., Nov. 3-7, 2013.
 94. Alex Aboagye, Hytham Ibrahim Elbohy, Ajit Kelkar, Qiquan Qiao, Lifeng Zhang, Carbon Nanofibers with Surface-attached Platinum Nanoparticles as Cost-effective and Efficient Counter Electrode for Dye-sensitized Solar Cells, NanoTek 2013, December 2 - 4, 2013, Las Vegas (USA)
 95. Swaminathan Venkatesan, Qiquan Qiao, Jihua Chen, Nirmal Adhikari, Evan C Ngo, Role of Nanoscale Domain Size, Purity and Interfaces on the Charge Transport and Recombination Dynamics of Organic Bulk Heterojunction Solar Cells, MRS Fall Meeting, Boston, December 1-6, 2013.
 96. Qiquan Qiao, Development of Cost Effective Organic Solar Cells, International Conference on Electrical Information and Communication Technology, Dec 19-21, 2014, KUET, Khulna, Bangladesh. **Keynote speaker.**
 97. Qiquan Qiao, International Conference on Small Science (ICSS 2013), 15 to 18 December 2013, Red Rock Casino Resort and Spa, Las Vegas, NV, USA. **Invited talk.**
 98. Jianyuan Sun, Lianjie Zhang, Ashish Dubey, Swaminathan Venkatesan, Ting-Yu Lin, Logan P. Sanow, Yu-Chueh Hung, Andrew Sykes, Hongshan He, Qiquan Qiao, Cheng Zhang, Ring-protected small molecules for organic photovoltaics, SPIE Organic Photovoltaic XIV, San Diego, California, United States, August 25, 2013
 99. Qiquan Qiao, Organic Solar Cells, 3M Science and Engineering Faculty Day, June 12-13, 2013, St Paul, MN. **Invited talk.**
 100. Olusegun Adebajo, Purna P. Maharjan, Qiliang Chen, Lianjie Zhang & Qiquan Qiao, A new conjugated copolymer based on dodecyloxybenzothiadiazole for application in photovoltaic solar cells, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013.
 101. Bjorn Vaagensmith, Ashish Dubey, Swaminathan Venkatesan, Qiquan Qiao, Simple continuous polyol method for synthesis of controlled silver nanowires, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013.
 102. Hytham Elbohy, Qiquan Qiao, David W Galipeau, Vanadium (V) Oxide (V₂O₅) as charge recombination blocking layer to improve the dye sensitized solar cell efficiency, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013.
 103. Amit Thapa, Yong Zhao, Prashant Poudel, Ashish Dubey, Hao Fong, Qiquan Qiao, Platinum incorporated titanium carbide nanofibers as an efficient counter electrode in DSSC, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013
 104. Nirmal Adhikari, Swaminathan Venkatesan, Purna Maharjan, Prajwal Adhikary, Qiquan Qiao, Transient photoconductivity measurement in bulk heterojunction solar cells: tradeoff between charge carrier collection and recombination time, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013
 105. Evan Ngo, Qiquan Qiao Fully Solution Processed Polymer Solar Cells, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013
 106. Swaminathan Venkatesan, Evan Ngo, Jihua Chen, Prajwal Adhikary, Qiquan Qiao, Importance of Structural Ordering on Optoelectronic Properties of PDPP3T Films, SD EPSCoR All Investigator Meeting, Chamberlain, SD, May 29-31, 2013
 107. Qiquan Qiao, Organic Solar Cells, Anqing Normal University, Anqing, Anhui, China, May 24, 2013. **Invited talk.**
 108. Qiquan Qiao, Organic Solar Cells and their Potential Applications in Window PVs, University Relations Energized, Agilent University Research Fair 2013, California, May 2013.
 109. Qiquan Qiao, Organic Solar Cells, Institute of Plasma Physics, Hefei, Anhui, China, May 22, 2013. **Invited talk.**
 110. Qiquan Qiao, Organic Solar Cells, Chongqing Institute of Green and Intelligent Technology, Chongqing, China, May 20, 2013. **Invited talk.**

111. Qiquan Qiao, Kelvin Probe Force Microscopic Study of Nanoscale Interlayers in Double Junction Organic Solar Cells, 2nd International Congress on Advanced Materials (AM2013), Jiangsu China, 16-19 May 2013. **Invited talk.**
112. Qiquan Qiao, Organic Solar Cells, Sigma Xi Annual Banquet, April 22, 2013, SDSU. **Keynote talk.**
113. Qiquan Qiao, Organic solar cells, 3rd Annual UND-NDSU-SDSU Engineering Research Summit, April 23, 2013, South Dakota State University, Brookings, SD.
114. Prajwal Adhikary & Swaminathan Venkatesan & Qiquan Qiao, Enhanced Performance of PDPP3T/PCBM Solar Cells with UV Ozone Treated Inverted Structure, 3rd Annual UND-NDSU-SDSU Engineering Research Summit, April 23, 2013, South Dakota State University, Brookings, SD.
115. Swaminathan Venkatesan, Nirmal Adhikari, Jihua Chen, Evan Ngo, Qiquan Qiao, Importance of Structural Ordering on Optoelectronic Properties of PDPP3T Films, 3rd Annual UND-NDSU-SDSU Engineering Research Summit, April 23, 2013, South Dakota State University, Brookings, SD.
116. Qiquan Qiao, Organic solar cells, ABE 792 S01 (72021): Renewable Energy Engineering, April 15 and 17, 2013, **Invited speaker.**
117. Qiquan Qiao and Prajwal Adhikary, Enhanced Performance of PBDTTT-C-T/PC70BM Solar Cells with UV Ozone Treated Inverted Structure, 214th ACS Meeting, April 6-12, 2013, New Orleans, LA. **Invited talk.**
118. Swaminathan Venkatesan, Nirmal Adhikari, Jihua Chen, Evan Ngo, Qiquan Qiao, Importance of Structural Ordering on Optoelectronic Properties of PDPP3T Films, MRS Spring Meeting, April 1-5 2013, San Francisco, California.
119. Qiquan Qiao, Kelvin Probe Force Microscopic Study of Nanoscale Interlayers in Double Junction Organic Solar Cells, 3rd Academic and Industry Nanotechnology Conference, St. Cloud State University, Minnesota, Feb 28, 2013, **invited talk.**
120. Prajwal Adhikary & Swaminathan Venkatesan & Qiquan Qiao, Enhanced Performance of PDPP3T/PCBM Solar Cells with UV Ozone Treated Inverted Structure, 3rd Academic and Industry Nanotechnology Conference, St. Cloud State University, Minnesota, Feb 28, 2013, **invited talk.**
121. Qiquan Qiao, Kelvin probe force microscopic study of nanoscale interlayers in double junction organic solar cells, Second international conference on small science, Dec 16-19, 2012, Orlando, FL, **invited talk.**
122. Qiquan Qiao, Organic Solar Cells and their Potential Applications in Window PVs, 3M Science and Engineering Faculty Day, Twin Cities, MN, Oct 31 – Nov 1, 2012, **invited talk.**
123. Swaminathan Venkatesan, Qiliang Chen, Purna Maharjan and Qiquan Qiao, Novel low bandgap benzothiadiazole based polymers for photovoltaic applications, SPIE Organic Photovoltaics, Aug 2012, San Diego, CA.
124. Shake Ebrahim , Qiquan Qiao, Ashish Douby, Moataz Soliman, CdHgTe quantum dots for applications in solar cells, Inter-Continental Advanced Materials for Photonics (I-CAMP) Summer School on renewable and sustainable energy, July 16 – Aug 11, 2012, Boulder, Colorado, USA
125. Qiquan Qiao, Cost Effective Solar Cells – Polymer Solar Cells and Dye-sensitized Solar Cells, University of Science and Technology of China, Hefei National Laboratory for Physical Sciences at the Microscale, China, July 2012, **invited seminar.**
126. Qiquan Qiao, Cost Effective Solar Cells – Polymer Solar Cells and Dye-sensitized Solar Cells, Nanjing Science and Technology University, Materials Science and Technology, China, July 2012, **invited seminar.**
127. Qiquan Qiao, Cost Effective Solar Cells – Polymer Solar Cells and Dye-sensitized Solar Cells, Southeast University, Physics Department, China, July 2012, **invited seminar.**
128. Qiquan Qiao, Cost Effective Solar Cells – Polymer Solar Cells and Dye-sensitized Solar Cells, Nanjing University, Physics Department, China, July 2012, **invited seminar.**
129. Qiquan Qiao, Cost Effective Solar Cells – Polymer Solar Cells and Dye-sensitized Solar Cells, Shanghai Jiaotong University, China, July 2012, **invited seminar.**
130. Qiquan Qiao, Cost Effective Solar Cells – Polymer Solar Cells and Dye-sensitized Solar Cells, Fudan University, China, July 2012, invited seminar.

131. Qiquan Qiao, Carbon nanofibers for dye-sensitized solar cells. International Conference of Young Researchers on Advanced Materials (ICYRAM), International Union of Materials Research Societies (IUMRS), Singapore, July 2012, **keynote speakers and panelist.**
132. Mahbube Khoda Siddiki, David W. Galipeau, Qiquan Qiao, Nb₂O₅ as a New Electron Transport Layer for Double Junction Polymer Solar Cells, NSF/SD EPSCoR All Investigator Meeting, Chamberlain, SD, June 4-7, 2012
133. Qiliang Chen, Purna P. Maharjan, Olusegun Adebajo & Qiquan Qiao, New Conjugated Polymer for Single Bulk Heterojunction Polymer Solar cell, NSF/SD EPSCoR All Investigator Meeting, Chamberlain, SD, June 4-7, 2012
134. Olusegun Adebajo, Lianjie Zhang, Purna P. Maharjan, Cheng Zhang & Qiquan Qiao, Single Bulk-Heterojunction Polymer Solar Cell based on PTOT-DT Conjugated Polymer, NSF/SD EPSCoR All Investigator Meeting, Chamberlain, SD, June 4-7, 2012
135. Prajwal Adhikary & Swaminathan Venkatesan & Qiquan Qiao, Enhanced Performance of PDPP3T/PCBM Solar Cells with UV Ozone Treated Inverted Structure, NSF/SD EPSCoR All Investigator Meeting, Chamberlain, SD, June 4-7, 2012
136. Swaminathan Swaminathan, Qiliang Chen and Qiquan Qiao, Optoelectronic Characterization of Novel Low Bandgap Polymer for Photovoltaic application, NSF/SD EPSCoR All Investigator Meeting, Chamberlain, SD, June 4-7, 2012
137. Qiquan Qiao, Organic solar cells, 2nd Annual UND-NDSU-SDSU Engineering Research Summit, April 23, 2012, University of North Dakota
138. Swaminathan Venkatesan and Qiquan Qiao, Materials and Devices Design for Organic Photovoltaics, US-Egypt Joint Workshop on Solar Energy Systems and Materials, Cairo, Egypt, March 11-14, 2012.
139. Qiquan Qiao, "Materials and Device Design in Single and Multijunction Organic Solar Cells", First European-Mediterranean Conference on Material and Renewable Energies (EMCMRE-1), Nov 21-25, 2011, Marrakech-Morocco, **invited talk.**
140. Qiquan Qiao, "Materials and Devices Design for High Efficiency Organic Solar Cells", US-Morocco Workshop on Nano-Materials and Renewable Energies, Al Akhawayn University in Ifrane, Morocco, November 17 – 19, 2011, **invited talk.**
141. Shangke Pan, Tingting Xu, Swaminathan Venkatesan, Jing Li, Qiliang Chen, Qiquan Qiao, "Direct Growth of CdSe Nanorods on Transparent Conductive Oxide Substrates for Organic Solar Cells", Richmond, Virginia, November 7-10, 2011.
142. Tingting Xu, Swaminathan Venkatesan, Yu Xie, Mahbube Siddiki, Qiquan Qiao, "Charge Transport of ZnO nanostructured Organic/Inorganic Hybrid Solar Cells", Richmond, Virginia, November 7-10, 2011.
143. Qiquan Qiao, "Development of Cost Effective Solar Cells: Dye-Sensitized Solar Cells and Polymer Photovoltaics", Shanghai Institute of Ceramics, Chinese Academy of Sciences, Oct 25, 2011, Shanghai, China, **invited talks.**
144. Qiquan Qiao, Development of Cost Effective Solar Cells: Polymer Solar Cells and Dye-Sensitized Solar Cells, Hefei Institute of Physical Sciences, Chinese Academy of Sciences, Hefei China, Oct 21 2011, invited talks.6. Qiquan Qiao, "Development of Cost Effective Solar Cells: Dye-Sensitized Solar Cells and Polymer Photovoltaics", Dalian University of Technology, Dalian, China, Oct 20, 2011, **invited talks.**
145. Qiquan Qiao, Prakash Joshi, and Prashant Poudel, Novel Carbon Nanofibers for Efficient Dye-Sensitized Solar Cells, Low Carbon Earth Summit-2011 (LCES-2011), Dalian, China, Oct 20 2011, **invited talk.**
146. Qiquan Qiao, "Development of Cost Effective Solar Cells: Dye-Sensitized Solar Cells and Polymer Photovoltaics", Dalian Institute of Chemical Physics (DICP), Chinese Academy of Sciences, Oct 19, 2011, Dalian, China, **invited talks.**
147. Qiquan Qiao, Novel Nanofibers for Dye-Sensitized Solar Cells, North Dakota State University, Oct 4, 2011, **invited talk.**

148. Prajwal Adhikary, Swaminathan Venkatesan, Mahbube Siddiki, Tingting Xu, David Galipeau, and Qiquan Qiao, "Fabrication of Inverted Polymer Organic Solar cells with ZnO as Electron Transport Layer", ND-SD Joint EPSCoR Conference, Fargo, ND, Oct 4, 2011.
149. Prashant Poudel, Lifeng Zhang, Prakash Joshi, Swaminathan Venkatesan, David Galipeau, Hao Fong, and Qiquan Qiao, "Electrospun Carbon Nanofiber/Platinum Counter Electrode for Efficient Dye-Sensitized Solar Cells", ND-SD Joint EPSCoR Conference, Fargo, ND, Oct 4, 2011.
150. Zhihe Zhao and Qiquan Qiao, "Device Simulation of Bulk Heterojunction Solar cells using Monte Carlo Model Coupled with Continuum Model", ND-SD Joint EPSCoR Conference, Fargo, ND, Oct 4, 2011.
151. Buddhi Sagar Lamsal, Swaminathan Venkatesan, Qi Hua Fan, Qiao Qiquan, Yung Huh, David W Galipeau, Effect of annealing on the optoelectronic properties of Indium Tin Oxide, ND-SD Joint EPSCoR Conference, Fargo, ND, Oct 4, 2011.
152. Qiquan Qiao, "Materials and Devices Design for High Efficiency Single and Multijunction Organic Solar Cells", 22nd Space Photovoltaic Research and Technology (SPRAT) Conference (SPRAT XXII), Ohio Aerospace Institute, Cleveland, OH, Sept 20-22, 2011, **invited talk**.
153. Swaminathan Venkatesan, Buddhi S. Lamsal, Qihua Fan, and Qiquan Qiao, "Nanoscale Electrical Characterization of Sputter-Deposited ITO Films", 22nd Space Photovoltaic Research and Technology (SPRAT) Conference (SPRAT XXII), Ohio Aerospace Institute, Cleveland, OH, Sept 20-22, 2011.
154. Tingting Xu and Qiquan Qiao, "ZnO Nanorods/Polymer Interface Modification for Efficient Hybrid Solar Cells", 22nd Space Photovoltaic Research and Technology (SPRAT) Conference (SPRAT XXII), Ohio Aerospace Institute, Cleveland, OH, Sept 20-22, 2011.
155. Ahmed Abdelrahem, Prakash Joshi, Prashant Poudel, Lifeng Zhang, Hao Fong, and Qiquan Qiao, "Carbon Nano-Fiber/Nano-Particle Composite Film For Dye Sensitized Solar Cell (DSSC)", 2011 NPURC End of Summer Symposium, Ponca State Park in Ponca , NE, July 29, 2011.
156. Christian Tchamda, Tingting Xu, Qiliang Chen, Choumini Balasanthira, James D Hoefelmeyer, and Qiquan Qiao, "P3HT-Based Hybrid Solar Cells with TiO₂ Nanorods", 2011 NPURC End of Summer Symposium, Ponca State Park in Ponca , NE, July 29, 2011.
157. Mahbube K Siddiki, Qiquan Qiao, "Novel Recombination Layer for Polymer Multijunction Solar Cell", 37th IEEE Photovoltaic Specialist Conference (PVSC), Seattle, Washington, June 19-24, 2011.
158. Qiquan Qiao, "Organic Photovoltaics for Renewable Energy", 2011 CMOS Emerging Technologies Meeting, Whistler, British Columbia, Canada, June 14-17, 2011, **invited talk**.
159. Qiquan Qiao, "Novel Tandem Polymer Photovoltaics using Printing or Roll-to-Roll Processing", South Dakota EPSCoR AAAS PANS Review Meeting, Chamberlain, SD, June 2-3, 2011.
160. Tingting Xu, Yu Xie, Qiliang Chen, David Galipeau, Qiquan Qiao, "Novel Approach to Fabricate P3HT/ZnO Nanorod Polymer Hybrid Solar Cells", South Dakota EPSCoR AAAS PANS Review Meeting, Chamberlain, SD, June 2-3, 2011.
161. Jing Li, Yu Xie, and Qiquan Qiao, "Linker Effects on the Design of Conjugated Copolymers", South Dakota EPSCoR AAAS PANS Review Meeting, Chamberlain, SD, June 2-3, 2011.
162. Mahbube Khoda Siddiki, D. W. Galipeau, Qiquan Qiao, "Novel interfacial layer for polymer double junction solar cells", South Dakota EPSCoR AAAS PANS Review Meeting, Chamberlain, SD, June 2-3, 2011.
163. Prakash Joshi, Lifeng Zhang, Qiliang Chen, David Galipeau, Hao Fong, and Qiquan Qiao, "Electrospun Carbon Nanofibers for Dye-Sensitized Solar Cells", South Dakota EPSCoR AAAS PANS Review Meeting, Chamberlain, SD, June 2-3, 2011.
164. Yu Xie, Pavel Dutta, Jikai Du, Venkat Bomisetty, David Galipeau, Qiquan Qiao, "Spin-Casting Solvent Mediated Microscale Associated with Nanoscale Surface Morphology Engineering on P3HT/PCBM Blend Films" South Dakota EPSCoR AAAS PANS Review Meeting, Chamberlain, SD, June 2-3, 2011.
165. Qiquan Qiao, "Organic Solar Cells", 2011 Engineering Research Summit, Fargo, ND, April 29, 2011.

166. Diane M Hinkens, Qiquan Qiao, Malika Jeffries-EL, and Seth B Darling, "Investigation of the properties of the p-n junction of donor-acceptor block copolymer fragments", 241st ACS National Meeting, Anaheim, CA, March 27-31, 2011.
167. Qiquan Qiao, "Materials and device design for organic photovoltaics", Weizmann Institute of Science, Rehovot, Israel, Nov 3, 2010.
168. Qiquan Qiao, "New materials and device design for organic photovoltaics", North Carolina State University, Materials Science and Engineering Department Seminar, Raleigh, NC, Sept 24, 2010.
169. Tingting Xu, Qiliang Chen, Dai-Hong Lin, Hsueh-Yu Wu, Ching-Fuh Lin and Qiquan Qiao, "Electropolymerization of Conjugate Polymer in Vertical Aligned ZnO Nanowires", SPIE Organic Photovoltaics Conference, San Diego, CA, August 2010.
170. Tingting Xu, Jing Li, Heather Rohwer, James D. Hoefelmeyer, David Galipeau and Qiquan Qiao, "in-Situ polymerization of P3HT and TiO₂ nanocomposites for solar cells", Presented at 35rd IEEE Photovoltaic Specialists Conference, Honolulu, HI, Date: June 21-25, 2010.
171. Qiquan Qiao "PANS Grand Opportunity - Cost Effective Tandem Polymer Photovoltaics using Printing or Roll-to-Roll Processing", South Dakota SD EPSCoR Annual Meeting, Chamberlain, SD, (June, 2010).
172. Mahbube Khoda Siddiki, Yu Xie, Qiliang Chen, Jing Li, Diane Hinkens, D. W. Galipeau, Qiquan Qiao, "Tandem Polymer Solar Cells", Presented at SD EPSCoR Annual Meeting, Chamberlain, SD, Date: June 13-15, 2010.
173. Yu Xie, Yong Li, Qiquan Qiao, Rabin Dhakal, Zhiling Zhang, David Galipeau, Xingzhong Yan, "Time-resolved Femtosecond Fluorescence Study of P3HT/PCBM Blend Films", Presented at SD EPSCoR Annual Meeting, Chamberlain, SD, Date: June 13-15, 2010.
174. Prakash Joshi, Lifeng Zhang, Hao Fong, Qiliang Chen, David Galipeau, and Qiquan Qiao, "Electrospun Carbon Nanofiber Counter Electrode for Dye-Sensitized Solar Cells", Presented at SD EPSCoR Annual Meeting, Chamberlain, SD, Date: June 13-15, 2010.
175. Qiquan Qiao, "Nano and Organic Photovoltaic Materials and Devices for Renewable Energy" The State University of New York at Buffalo, Department of Electrical Engineering Seminar, Buffalo, New York, May 3, 2010.
176. Pavel Dutta, Yu Xie, Dorin Cengher, Jing Li, David Galipeau, Qiquan Qiao and Venkat Bommisetty "Effect of Solvent on the Nanoscale Phase Separation and Surface Potential Distribution in P3HT/PCBM Blends", MRS Spring Meeting, April 5 - 9, 2010, San Francisco, CA.
177. Diane Hinkens, Seth Darling, and Qiquan Qiao, "Studies of the Molecular p-n Junction Formed with an n-type and p-type Polymer Fragment: Theoretical and Experimental", Argonne Center for Nanoscale Materials (CNM) Users Meeting, Oct. 5-7, 2009, Argonne, Chicago, IL.
178. Yu Xie, Pavel Dutta, Dorin Cengher, Venkat Bommisetty, Jing Li, David Galipeau, and Qiquan Qiao, "Solvent effect on the morphology of P3HT/PCBM films" Argonne Center for Nanoscale Materials (CNM) Users Meeting, Oct. 5-7, 2009, Argonne, Chicago, IL.
179. Mahbube Siddiki, Qiquan Qiao, et al. poster presentation, Argonne Center for Nanoscale Materials (CNM) Users Meeting, Oct. 5-7, 2009, Argonne, Chicago, IL.
180. Prakash Joshi and Qiquan Qiao, "Dye-Sensitized Solar Cells Using Low Cost Nanocarbon as Counter Electrode" The 21st Space Photovoltaic Research and Technology (SPRAT) Conference, NASA Glenn Research Center, Cleveland, OH, October 6, 2009.
181. Prakash Joshi, Lifeng Zhang, Hao Fong, David Galipeau, and Qiquan Qiao, "PbS Quantum Dots Embedded TiO₂ Nanofibers for Dye Sensitized Solar Cells", Presented at 34th IEEE Photovoltaic Specialists Conference, Philadelphia, PA, Date: June 7-12, 2009.
182. Yu Xie, Pavel Dutta, Dorin Cengher, Venkat Bommisetty, Jing Li, David Galipeau, and Qiquan Qiao, "Solvent effect on the morphology of P3HT/PCBM films", Presented at SPIE Organic Photovoltaics, San Diego, CA, Aug 2009.
183. Diane Hinkens, Seth Darling, and Qiquan Qiao, "Studies of the Molecular p-n Junction Formed with an n-type and p-type Polymer Fragment: Theoretical and Experimental", Presented at SPIE Organic Photovoltaics, San Diego, CA, Aug 2009.
184. Qiquan Qiao, "Organic Solar Cells", The Northern Plains Undergraduate Research Center (NPURC) Workshop, University of South Dakota, Vermillion, SD, May 28 2009. **Invited speaker.**

185. Yu Xie, Shaoyan Li, Ting Zhang, Prakash Joshi, Hao Fong, Mike Ropp, David Galipeau, Qiquan Qiao. Dye-Sensitized Solar Cells based on ZnO Nanorod Arrays. SPIE Photonic Devices + Applications, 10-14 August 2008, San Diego, CA
186. Y. Xie, P. Joshi, M. Ropp, D. Galipeau, Y. You, and Q. Qiao. Core-Modified Porphyrins as Sensitizers for Dye-Sensitized Solar Cells. in 33rd IEEE Photovoltaic Specialists Conference. San Diego, CA, May 11-16, 2008.
187. Q. Qiao, J.T. Mcleskey Jr, Y. Xie, Y. You, P. Joshi, M. Ropp, and D. Galipeau. "Polymer Photovoltaics from All-Water-Solution Processing". in 33rd IEEE Photovoltaic Specialists Conference. San Diego, CA, May 11-16, 2008.
188. Prakash Joshi, Xie Yu, Jeremiah Mwaura, Mike Ropp, David Galipeau, and Q. Qiao. "Carbon Nanoparticle Catalyst for Dye-Sensitized Solar Cells". in 33rd IEEE Photovoltaic Specialists Conference. San Diego, CA, May 11-16, 2008.
189. Santosh, V. Bommisetty, Q. Qiao, M. Ropp, "Electrolytically Deposited Titanium Dioxide Films for Dye Sensitized Solar Cell Applications". 33rd IEEE Photovoltaic Specialists Conference, San Diego, May 11-16, 2008.
190. Prakash Joshi, Xie Yu, Jeremiah Mwaura, Mike Ropp, David Galipeau, Qiquan Qiao. Carbon Nanoparticles for Counter Electrode Catalyst in Dye-Sensitized Solar Cells. MRS spring meeting, March 17, 2008, San Francisco, CA.
191. Qiquan Qiao, "Organic Light Emitting Diodes (OLED) for Plastic Displays", Presented at Daktronics Inc, Brookings, SD, January 30, 2008.
192. Qiquan Qiao, "Organic Photovoltaics", Midwest state and Argonne Workshop, Argonne, IL, January 14 2008.
193. J. R. Reynolds, K. S. Schanze, H. Jiang, Y.-G. Kim, J. Mei, K. Ogawa, Q. Qiao and P. Taranekar, "Variable Gap Conjugated, Organometallic and Hyperbranched Polymers in Hybrid Photovoltaic Devices". MRS 2007 Fall Meeting, Symposium H: Nanostructured Solar Cells, November 28, 2007.
194. Qiquan Qiao, "Organic Solar Cells", SDSU Department of Electrical Engineering Seminar, Brookings, SD, Oct 16, 2007.
195. Qiquan Qiao, "Organic Solar Cells", CPSS fall meeting, SDSU Student Union, Brookings, SD, Oct 16, 2007. **Invited speaker.**
196. P. Walke, D. Friedrichs, V. Bommisetty, and Q. Qiao, "Growth of TiO₂ nanotubes for dye-sensitized solar cells", ND/SD 6th Biennial Joint State Conference, Fargo, North Dakota, Sept. 2007.
197. Q. Qiao and J. T. McLeskey, Jr., "Organic solar cells from a water soluble polymer and nanocrystalline TiO₂", presented at Virginia Nanotech 2006, Newport News, VA, June 11-13, 2006.
198. James T. McLeskey, Jr. and Qiquan Qiao, "Hybrid Solar Cells from Water-Soluble Polymers", The 9th International Conference on Solar Energy and Applied Photochemistry [SOLAR '06], Cairo, Egypt, January 2006 (invited keynote address).
199. Qiquan Qiao and James T. McLeskey, low-cost solar cells using water-soluble polymers, presented at International Solar Energy Conference (ISEC 2006), Denver, Colorado, July 8-13, 2006.
200. Qiquan Qiao "Green organic solar cells from a water-soluble polymer and nanocrystalline TiO₂", University of Rochester, Department of Chemistry, Rochester, NY, June 22, 2006.
201. Qiquan Qiao "Green organic solar cells from a water-soluble polymer and nanocrystalline TiO₂", University of Arizona, Department of Chemistry, Tucson, AZ, May 2006.
202. Qiquan Qiao and James T. McLeskey, Jr., "PTEBS applications in photovoltaic devices," presented at the 17th Workshop on Quantum Solar Energy Conversion, Quantsol 2005, Rauris, Austria, March 14-18, 2005.
203. Qiquan Qiao, James Beck, James T. McLeskey, Photovoltaic devices from self-doped polymers. presented at Optics & Photonics 2005 (SPIE 2005), August 2005, San Diego, CA.
204. Qiquan Qiao, James Beck, James T. McLeskey, Optimization of Photovoltaic Devices from Layered PTEBS and Nanocrystalline TiO₂. presented at the 208th ECS Meeting 2005 (ECS 2005). Los Angeles, California from October 16 - October 21, 2005.

205. J. A. Rud, L. S. Lovell, J. W. Senn, Q. Qiao, and J. T. McLeskey, Jr., Water soluble polymer/carbon nanotube bulk heterojunction solar cells, presented at the International Conference on the Physics, Chemistry and Engineering of Solar Cells (SCCELL-2004), May 13 – 15, 2004, Badajoz, Spain.

Serve as paper reviewers for the following journals (36)

1. IEEE Transactions of Electron Devices
2. American Chemical Society Journal of Physical Chemistry (A, B, and C)
3. American Chemical Society Chemistry of Materials
4. MRS Proceedings
5. Journal of Materials Chemistry
6. Electrochemical Communication
7. Thin Solid Films
8. ACS Applied Materials and Interfaces
9. Physical Chemistry and Chemical Physics
10. Journal of Materials Chemistry
11. Chemical Communications
12. Energy and Environmental Science
13. Nanoscale
14. Solar Energy Materials and Solar Cells
15. Journal of Applied Physics
16. ACS Nano
17. Advanced Energy Materials
18. Chemistry A European Journal
19. ChemSusChem
20. Electrochimica Acta
21. Global journal of energy technology research
22. Hindawi Publishing
23. IEEE Photovoltaic Specialists Conference (PVSC)
24. International Journal of Green Energy
25. Journal of Inorganic and Organometallic Polymers and Material
26. Journal of Physical Chemistry
27. Journal of Thermal Analysis and Calorimetry
28. Langmuir
29. Materials Science and Engineering B
30. MDPI Energies
31. Nano Energy
32. Nanotechnology
33. Organic Electronics
34. Polymer
35. Science of Advanced Materials
36. scientific report

Serve as proposal reviewers for the following agents (11)

1. National Science Foundation (NSF)
2. Department of Energy (DOE)
3. Defense Threat Reduction Agency (DTRA)
4. American Association for the Advancement of Science (AAAS)
5. American Chemical Society Petroleum Research Fund (ACS-PRF)
6. Louisiana Board of Regents
7. Oak Ridge Associated Universities
8. NASA postdoctoral program
9. Argonne National Laboratory Center for Nanoscale Materials user program
10. US-Israel Binational Science Foundation

11. US-Egypt Joint Science and Technology Fund Program

Editorships of journals or other learned publications (5)

1. Serve as Associate Editor for IEEE Access Journal.
2. Served as Editorial Board Member of ISRN Renewable Energy
3. Served as Editorial Board Member of Global Journal of Energy Technology Research Updates, Avanti Publishers
4. Served as Springer Editorial Board Member for Encyclopedia of Nanotechnology
5. Served as editor on CRC Press book of Organic Solar Cells

General chair, conference organizer or session chair (17)

1. General Chair, 2019 IEEE International Conference on Electro/Information Technology, SDSU, Brookings, SD 57007, May 20-22, 2019.
2. Session Chair, International Conference on Energy, Materials and Photonics (EMP 2018), Montreal, Canada, July 8-11, 2018.
3. Session Chair, International Conference on Eco-Textiles, Wuxi, Jiangsu, China, June 22-24, 2018.
4. Session Chair, 2017 Nano-Micro Conference Workshop Chair, Shanghai, China, June 19-23, 2017.
5. Session Organizer and Chair, 2016 IEEE International Electro/Information Technology Conference, Grand Forks, ND 58201
6. Technical Program Committee and Keynote Speaker, 2016 International Conference on Material Science and Engineering [ICMSE2016], June 17-19, 2016 in Guangzhou, Guangdong, China.
7. General chair, 2016 International Conference on Material Science and Engineering [ICMSE2016], June 17-19, 2016 in Guangzhou, Guangdong, China.
8. Session organizer and Chair, Session 2A: Solar Cells and Batteries, 2016 International Electro/Information Technology Conference, Grand Forks, North Dakota, USA, May 19-21, 2016
9. Session chair, 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies, GIK Institute of Engineering Sciences and Technology, Topi, District Swabi, Khyber Pakhtunkhwa, Pakistan, April 1-3, 2016.
10. Conference organizer, 2016 Workshop on solar cell characterization technology, GIK Institute of Engineering Sciences and Technology, Topi, District Swabi, Khyber Pakhtunkhwa, Pakistan, April 1-3, 2016.
11. Conference organizer, together with Prof Hassan Sayyad, 2016 GIKI-SDSU International Conference on Next Generation Energy Technologies, GIK Institute of Engineering Sciences and Technology, Topi, District Swabi, Khyber Pakhtunkhwa, Pakistan, April 1-3, 2016.
12. Session chair, 2015 International Symposium on Functional Fibrous Material (ISFFM2015), Jiangnan University, Wuxi, Jiangsu, China, Dec 14-16, 2015.
13. Session chair, Photonics North 2014, Montreal, Canada, May 28-30, 2014
14. Session chair, 2014 International Nanophotonics and Nanoenergy Conference (INPEC), Seoul, Korea, July 1-3, 2014
15. Conference organizer, together with Prof Hassan Sayyad, 2013 GIKI-SDSU International Symposium on Design of Dye-sensitized Solar Cells for Cost effective Energy Harvesting, GIK Institute of Engineering Sciences and Technology, Topi, District Swabi, Khyber Pakhtunkhwa, Pakistan, Dec 13-15, 2013.
16. Session chair, 2013 GIKI-SDSU International Symposium on Design of Dye-sensitized Solar Cells for Cost effective Energy Harvesting, GIK Institute of Engineering Sciences and Technology, Topi, District Swabi, Khyber Pakhtunkhwa, Pakistan, Dec 13-15, 2013.
17. Session chair, 2nd International Congress on Advanced Materials (AM2013), Zhengjiang, Jiangsu, China, May 16-19, 2013

News & Reports on Qiao group research

1. Sioux Falls news <http://siouxfalls.suntimes.com/sxf-news/7/136/26516/improving-organic-solar-cell-efficiency-essential-to-providing-clean-abundant-energy> (2015)
2. SDSU news <http://www.sdstate.edu/news/articles/organic-solar-cell-efficiency.cfm> (2015)

3. SDSU J Lohr College of Engineering News
<http://www.sdstate.edu/engr/research/activities/awards/2011-awards.cfm> (2012)
4. SDSU College of Engineering News www.sdstate.edu/news/articles/qiaoaward.cfm (2010)
5. X-journal news (2010). <http://x-journals.com/2010/award-will-help-researcher-build-efficient-organic-solar-cells/qiquan-qiao/>
6. South Dakota State University News (2010)
7. South Dakota EPSCoR News (2009) (http://www.sdepscor.org/newsletter_fallwinter10_edition.pdf)
8. NSF discovery webpage (2008)
(http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=112862&org=EPSC)
9. South Dakota EPSCoR update (2008)
<http://sdepscor.org/PDF%20files/Newsletters/summer%20newsletter%2008%20web.pdf>
10. ScienceDaily (2008) (<http://www.sciencedaily.com/releases/2008/08/080821212854.htm>)
11. News at the state of South Dakota (2008)
<http://www3.sdstate.edu/SDSU/NewsDetail45702.cfm?ID=46,6591>
12. Nanowerk News (2008) <http://www.nanowerk.com/news/newsid=6864.php>
13. Knk Decoration News (2008) <http://knkdecoration.blogspot.com/>
14. Environmental Protection News (2008) <http://www.eponline.com/articles/66926/>
15. Chemical and Engineering News (2007) <http://pubs.acs.org/email/cen/html/071807134454.html>
16. SPIE Newsroom (2006) <http://spie.org/x8746.xml?ArticleID=x8746>
17. Advanced Ceramics Reports (2005) (http://www.performance-materials.net/secure/assets/i20050811_543911_42faf8a71080f.pdf)
18. Nanotechweb (2005) http://nanotechweb.org/cws/article/tech/22482/1/Quiquan_Qiao

Courses Taught

- EE 735 - Photovoltaics
- EE 4/560 - Sensors and Measurements
- EE 260 - Electronic Materials
- EE 760 - Advanced Electronic Materials
- EE 692 - Organic Electronics/ Photovoltaics

Collaborators

- | | |
|------------------------|---|
| • Sheila Bailey | NASA Glenn |
| • Michael Bendikov | Weizmann Institute of Sciences, Israel |
| • Jihua Chen | Oak Ridge National Laboratory |
| • Seth Darling | Argonne National Laboratory |
| • Hao Fong | South Dakota School of Mines and Technology |
| • James D Hoefelmeyer | University of South Dakota |
| • Chaoyang Jiang | University of South Dakota |
| • Brian Logue | South Dakota State University |
| • Linbao Luo | Hefei University of Technology, China |
| • Greg Nelson | OLAMco Solar |
| • Oleg G. Poluektov | Argonne National Laboratory |
| • Steven Smith | South Dakota School of Mines and Technology |
| • Alevtina L. Smirnova | South Dakota School of Mines and Technology |
| • Moataz Soliman | Alexandria University, Egypt |
| • Shangfeng Yang | University of Science and Technology of China |
| • Mingtai Wang | Hefei Institute of Plasma Physics, China |
| • Zhengtao Zhu | South Dakota School of Mines and Technology |

Graduate advisor (1)

- Prof. James T McLeskey, Virginia Commonwealth University, Richmond, VA

Postdoctoral advisors (2)

- Prof. John R. Reynolds, currently in Chemistry & Biochemistry, Materials Science & Engineering, Georgia Institute of Technology.
- Prof. Kirk K.S. Schanze, University of Florida, Gainesville, FL.

Served as dissertation advisor for Ph.D. students (23)

1. Yu Xie, graduated, (University of Kansas)
2. Prakash Joshi, graduated, (Nepal)
3. Mahbube Khoda Siddiki, graduated, (University of Missouri)
4. Tingting Xu, graduated, (Northwestern Polytechnical University, China)
5. Swaminathan Venkatesan (PhD), graduated, (University of Houston)
6. Olusegun Adebajo (PhD), graduated
7. Anastasiia Iefanova (PhD), graduated
8. Ashim Gurung (PhD), graduated
9. Nirmal Adhikari (PhD), graduated
10. Ashish Dubey (PhD), graduated
11. Bjorn Vaagensmith (PhD), graduated
12. Sharmin Haq (PhD), transferred to another university
13. Hytham Elbohy (PhD), current student
14. Sally Mabrouk (PhD), current student
15. Behzad Bahrami (PhD), current student
16. Reza Khan Mamun (PhD), current student
17. Eman A. Gaml (current visiting PhD student)
18. Salem Saad Mohammed Abdulkarim (PhD), current student
19. Ke Chen (PhD), current student
20. Rajesh Pathak (PhD), current student
21. Ashraf Haider Chowdhury (PhD), current student
22. MD Tawabur Raman (PhD), current student
23. Ahmed Almagroos (PhD), current student

Served as thesis advisor for MS students (22)

1. Amit Thapa (T-mobile)
2. Prashant Poudel (Texas)
3. Porna Maharjan (Nepal)
4. Prajwal Adhikary (Solarmer Energy, Inc)
5. Abu Mitul (MS), graduated
6. Sudhan Sigdel (MS), graduated
7. Lal Mohammad (MS), graduated
8. Santosh Gyawali (MS), graduated
9. Upendra Neupane (MS), graduated
10. Bjorn Vaagensmith (MS), graduated
11. Devendra Khatiwada (MS), graduated
12. Ravi Kasaudhan (MS), transferred to SDSU computer science program
13. Roya Naderi (MS), graduated
14. Geetha Varnekar (MS), current student
15. Md. Saleh Akram Bhuiyan (MS), current student
16. Md. Nazmul Hasan (MS), current student
17. Bigyan Khanal (MS), current student
18. Abiral Baniya (MS), current student
19. Faisal Kabir (MS), current student
20. Santosh Chapagain (MS), current student
21. Basanta Chalise (MS), current student

22. Ataul Mamun (MS), current student

Served as advisor for visiting scholars, postdoc research associates (15)

- 1) Dr. Wenjin Yue (visiting scholar)
- 2) Mao Liang (visiting scholar)
- 3) Dr. Ravindra R. Kamble (visiting scholar)
- 4) Dr. Wenfeng Zhang (visiting scholar)
- 5) Dr. Mukesh Kumar (Indian Institute of Technology Ropar)
- 6) Dr. Zhengping Zhou (Virginia Tech)
- 7) Dr. Qi Wang (University of Michigan)
- 8) Dr. Diane Hinkens (SGI-USA)
- 9) Dr. Jing Li (Chongqing Institute of Green and Intelligent Technology, China)
- 10) Dr. Qiliang Chen (Han Energy, China)
- 11) Dr. Yue Song (Xidian University, China)
- 12) Dr. Shangke Pan (Shanghai Institute of Ceramics, China),
- 13) Dr. Shaker Atia (Alexandria university, Egypt)
- 14) Dr. Zhihe Zhao (unknown current institution)
- 15) Dr. Lianjie Zhang (South China University of Technology, China)