

Faculty Profile Format

1. Name	Dr. Dulen Saikia
2. Designation	Associate Professor
3. Qualification	Ph. D Dibrugarh University, 2014 M. Phil Dibrugarh University, 1997 M. Sc.(Physics) Condensed Matter Physics, Gauhati University, 1995 B. Sc. Physics(Major), Chemistry, Maths, Sibsagar College, Dibrugarh University, 1992
4. Areas of interest	● Synthesis and characterization of Nanoparticle: semiconductor, metal, magnetic ● Fabrication of low cost thin film solar cells

5. Experience

- Visiting Faculty-cum Supervisor for Research Degree Programmes at Apex Professional University vide Ref. No. APU/IRI/2014/016 dated 11th August 2014
- Comfortable in handling & interpretation of data of UV – Visible Spectrophotometer, Fluorescence Spectrophotometer, Keithley-2400 source meter.
- Comfortable in handling HIV AC coating unit.
- Convener/organizer:
 - International Seminar and workshop on Energy, Sustainability and Development – 2012 12th-14th October Sibsagar College, Joysagar, Assam, India
 - National energy Conservation Day, 13th – 14th December 2013, Sibsagar College, Joysagar, Assam, India
 - National Seminar cum Workshop on Advances in Science and Technology and Pertinent Need of Instrumentation, 9th – 11th September 2016, Sibsagar College, Joysagar, Assam
- Guest Editor
 - International Journal of Innovative Research and Development, 7(2012), ISSN-2278-0211 (online) ISSN – 2278-7631 (print).

6. Research Publications:

- D. Saikia, P.K. Saikia, P.K. Gogoi, Structural and Optical Properties of Nanostructured Cds thin films deposited at different preparative conditions, Chalcogenide letters, 7(5) (2010) 317 – 324 (Impact factor: 0.834)

- ii. D. Saikia, P.K. Saikia, P.K. Gogoi, M.R. Das, P. Sengupta, M.V. Shelke, Synthesis and characterization of Cds/PVA nanocomposite thin films from a complexing agent free system. *Materials Chemistry and Physics*, 131 (2011) 223-229. (Impact factor:2.234)
- iii. D. Saikia, P.K. Saikia, P.K. Gogoi, P.Saikia, Synthesis, characterization and photovoltaic application of silver doped Cds/PV Nanocomposite thin films, *Digest Journal of Nanomaterials and Biostructures*, 6(2) (2011), 589-597. (Impact factor:1.2).
- iv. P. Saikia, P.K. Saikia, D. Saikia, Fabrication and characterization of ZnSe/ZnTe/CdTe/HgTe multijunction solar cell, *Journal of Optoelectronics and Advanced materials-Rapid Communications*, 5(3) (2011), 204-207. (Impact factor: 0.457)
- v. D. Saikia, P. Phukan, N.Goswami, P.K. Saikia, P.K. Gogoi, Synthesis of Polymer-CdSe Nanocomposite by heat Induced Thermolysis Process and its Photovoltaic Applications, *International Journal of Innovative research and Development*, 7(2012) 60-68.
- vi. N. Goswami, P.K. Gogoi, M.K. Bhattacharyya, D. Saikia, Synthesis, Characterisation and Application of Cobalt (II), Nickel(II) and Copper (II) Complexes as Sensitizer Dye in DSSC with 4-cyanopyridine and isothiocyanate ligand, *International Journal of Innovative Research and Development*, 7(2012) 92-102.
- vii. M. Baruah, L. Sarma, D. Saikia, S. Sarma, Average monthly solar radiations at various places of north east India, *International Journal of Innovative Research and Development*, 7(2012) 287-294.
- viii. D. Saikia, Pallabi Phukan, M. Barua, S. Sarma, Synthesis and Characterisation of Copper Ferrite nanomagnetic material by Co-precipitation technique, *Indian journal of Science and Technology*, 6(2013) 105-106.
- ix. D. Saikia, P.K Saikia, P.K. Gogoi, S. Sarma, Synthesis of Polymer-PbS nanocomposite by solar-irradiation induced thermolysis process and its photovoltaic applications, *Journal of experimental nanoscience*, 8(3) (2013) 403-411. (Impact factor:1.01).
- x. Pallabi Phukan, D. Saikia, Optical and Structural investigation of CdSe quantum dots dispersed in PVA matrix and its Photovoltaic Application, *International Journal of Photoenergy*, Volume 2013, Article ID 728280. (Impact Factor: 2.66)
- xi. D. Saikia, Green Synthesis and Optical Characterisation of Silver Nanoparticles, *International Journal of Latest Research in Science and Technology* 3(2) 2014, pp 132-135. (Impact Factor:0.48)

- xii. D. Saikia, Pallabi Phukan, P.K Saikia, Synthesis and Characterization of PVA capped CdSe Nanoparticles from an Ammonia Free Bath, International Journal of Latest Research in Science and Technology 3(2) 2014, pp. 156-159. (Impact Factor:0.48)
- xiii. D. Saikia, Pallabi Phukan, Fabrication and evaluation of CdS/PbS thin film solar cell by chemical bath deposition technique, Thin Solid Films 562 (2014), pp 239-243. (Impact Factor:1.8)
- xiv. D. Saikia and others, Green synthesis of silver nanoparticles using Asiatic Pennywort and Bryophyllum leaves extract and their antimicrobial activity, Advanced Materials letters, 6(3) 2015 pp.260-264. (Impact Factor:1.9)
- xv. N. Goswami, P.K. Gogoi, D. Saikia, Synthesis, Characterization and Application of Nanoporous TiO₂ as Photoanode for DSSC Sensitized by a Natural Dye Extracted from "Mesua Ferrea", The International Journal of Science and Technoledge, 2(12) 2014, pp. 245-249 (Impact Factor:1.02).
- xvi. B.J. Baruah, M.N. Bora, L. Saikia, Dulen Saikia, Pallabi Phukan & K.C. Sarma, Effects of deposition temperature on structural, optical and electrical properties of TEA complexed nanocrystalline films of PbS prepared from lead acetate with reduced concentration, Journal of Materials Science: Materials in Electronics DOI 10.1007/s10854-015-4242-2. (Impact Factor:1.486)
- xvii. Purna K. Baruah, Priyakshree Borthakur, Gitashree Darabdhara, Chaitanya K. Kamaja, Indrapal Karbhal, Manjusha V. Shelke, Pallabi Phukan, D.Saikia and Manash R. Das* Sunlight 1 assisted degradation of dye molecules and reduction of toxic Cr(VI) in aqueous medium using magnetically recoverable Fe₃O₄/reduced graphene oxide nanocomposite, Royal Society of Chemistry Advances, 2016, 6, 11049-11063 (Impact Factor: 3.289)
- xviii. D. Saikia, P. Phukan, M.R. Das, influence of thickness of active layer on the performance of CBD Grown Cu-CdS/PbS Hetero-junction, Advanced Materials letters, 2017, 8(1) 65-69, DOI: 10:5185/amlett.2016.6496 (Impact Factor:1.46)

7. Seminar/Workshop

- i. Natinal Seminar on Application of Basic Sciences to Engineering and Technology in Don Bosco University, Guwahati, Assam, 12th – 13th March, 2010.
- ii. International Conference on Emerging Technologies on Renewable Energy in Anna University, Chennai, Tamilnadu, 18th – 21st August, 2010.
- iii. International Conference on Renewable Energy in Tezpur University, 2nd-4th November 2011

- iv. International Conference on Advanced Nanomaterials and Nanotechnology in IIT, Guwahati, 8th – 10th December 2011
- v. International Conference and Workshop on nanostructure Ceramics and Nanomaterials in Delhi University, Delhi, 13th-16th March 2012
- vi. International Seminar and Workshop on Energy, Sustainable And Development (ISWESD-2012) in Sibsagar College, Joysagar, Assam 12th – 14th 2012
- vii. International Conferences in Recent Advance in Nanoscience and Nanotechnology, organized by Nanoscience Center, JNU, New Delhi, 15th – 16th December 2014.
- viii. Material Research Society of India Symposium – 2016 on “Advanced Materials for Sustainable Applications”, CSIR-North East Institute of Science and Technology, Jorhat, 18th- 21st Februray 2016
- ix. “National Seminar cum Workshop on Advances in Science and Technology and Pertinent Need of Instrumentation” Sibsagar College, Joysagar, Assam 9th – 11th September 2016.