

Dr. YOOSUF AMEEN M

Assistant Professor, Department of Physics, Farook College (Autonomous)
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Joining Date: 06-06-2019

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1. Education

P.h.D. in Physics, Department of Physics, National Institute of Technology Calicut, Kerala, India, 2018

M. Sc. Physics, The Cochin College, Mahatma Gandhi University, Kerala, India, 2008

B. Ed (Physical Science) Calicut University Teacher Education Centre Malappuram
University of Calicut, Kerala, India, 2009

2. Research Interest

- Organic solar cells
- Perovskite solar cells
- Organic Semiconductor Nanostructures for Photovoltaic Applications

3. Teaching Interest

Classical Mechanics, Quantum Mechanics, Computational Physics, Electricity, Magnetism and Nuclear Physics, Semiconductor Physics

4. Professional Experience

Research Experience

1. Research Intern at Los Alamos National Laboratory (LANL), USA under BASE Fellowship on the topic "Chemical Vapor Deposition (CVD) Growth of 2D and 3D Perovskite Films for Solar Cell Applications" (October 2016 to April 2017-six months)

5. Software Proficiency

Origin, Python

6. Research Publications

Articles in refereed/indexed/listed Journals

1. S. Arunkumar, K.A. Naseer, **M. Yoosuf Ameen**, K.A. Mahmoud, M.I. Sayyed, K. Marimuthu, D. James Silvia, R. Divina, Mohammed S. Alqahtani, El Sayed Yousef, "Physical, structural, optical, and radiation screening studies on Dysprosium ions doped Niobium Bariumtelluroborate glasses" Radiat. Phys. Chem., vol. 204, pp. 110669 March 2023. (Cite Score 4.9, Impact factor 2.9)
2. Amitha G. S, **M. Yoosuf Ameen**, V. Sivaji Reddy, and Suni Vasudevan, "Synthesis of peripherally tetra substituted neutral azophenoxy zinc phthalocyanine and its application in bulk heterojunction solar cells" J. Mol. Struct., vol. 1185, pp. 425-431, June. 2019. (Cite Score 5.1, Impact factor 3.841)
3. **M. Y. Ameen**, P. Shamjid, T. Abhijith, T. Radhakrishnan, and V. S. Reddy, "Stability enhancement of P3HT:PCBM polymer solar cells using thermally evaporated MoO₃ anode

buffer layer,” Phys. B Condens. Matter, vol. 530, pp. 201–207, Feb. 2018. (Cite Score 4.8, Impact factor 2.988)

4. **M. Y. Ameen**, P. Shamjid, T. Abhijith, and V. S. Reddy, “Solution processed transition metal oxide anode buffer layers for efficiency and stability enhancement of polymer solar cells,” Opt. Mater., vol. 75, pp. 491–500, Jan. 2018. (Cite Score 5.2, Impact factor 3.754)
5. P. Shamjid, S. Anjusree, **M. Yoosuf Ameen**, and V. S. Reddy, “Performance enhancement of polymer solar cells by incorporating Ag nanoparticles at an indium tin oxide/MoO₃ buffer layer interface,” Semicond. Sci. Technol., vol. 32, no. 6, p. 65010, Jun. 2017. (Cite Score 3.8, Impact factor 2.048)
6. **M. Yoosuf Ameen**, S. Pradhan, M. Remyth Suresh, and V. S. Reddy, “MoO₃ anode buffer layer for efficient and stable small molecular organic solar cells,” Opt. Mater., vol. 39, pp. 134–139, Jan. 2015. (Cite Score 5.2, Impact factor 3.754)
7. **M. Yoosuf Ameen**, T. Abhijith, S. De, S. K. Ray, and V. S. Reddy, “Linearly polarized emission from PTCDI-C8 one-dimensional microstructures,” Org. Electron., vol. 14, no. 2, pp. 554–559, Feb. 2013. (Cite Score 7.2, Impact factor 3.721)

Papers In Proceedings

1. T. Abhijith, **M. Yoosuf Ameen**, and V. S. Reddy, “Synthesis of PTCDI-C8 One dimensional Nanostructures for Photovoltaic Applications,” in International Conference on Material Science and Technology (ICMST), 2012, p. 184.

7. Papers Presented in Seminar/ Conferences

International

1. M. Yoosuf Ameen, P. Shamjid, and V. S. Reddy, “Tris (acetylacetonato) ruthenium(III) as Cathode Buffer Layer in CuPc/PTCDI-C8 Based Small Molecular Organic Solar Cells,” in International Conference on Energy Harvesting Storage and Conversion (IC-EEE), 2015, p. 59. (Best Oral Presentation Award)
2. P. Shamjid, L. Rajan, M. Yoosuf Ameen, and V. S. Reddy, “Effect of Substrate Temperature on Organic Solar Cell Characteristics,” in International Conference on Energy Harvesting Storage and Conversion (IC-EEE), 2015, p. 71.
3. M. Yoosuf Ameen, K. P. Saipriya, and V. S. Reddy, “Growth and Characterization of Cobalt Phthalocyanine Nanostructures for Chemical Sensors,” in International Conference on Thin Films & Applications (ICTFA), 2013, p. 117.
4. T. Abhijith, M. Yoosuf Ameen, and V. S. Reddy, “Organic Photovoltaic Devices based on CuPc Nanostructures,” in International Workshop on the Physics of Semiconductor Devices (IWPSD), 2011, p. 127.

8. Resource Persons served

Faculty Development Programme

1. Presented a paper on “Prospectus for Research & Innovation in the Workshop on Transforming Higher Education: Processes and Practices” organised by Rouzathul Uloom Arabic College, P.O. Farook College, Kozhikode, Kerala, India on 16-01-2022

Invited Talks

1. Invited talk on the topic *Printable solar cells: Powering the future* at the international webinar organized by Department of Science and Humanities, Vedavyasa Institute of Technology, Malappuram

9. Conferences/Seminars/ Workshops attended

Workshops

1. "INUP-i2i Familiarization Workshop on Nanofabrication Technologies (Online mode)", supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India and conducted by the Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore, from 20 – 22 December 2021.
2. International workshop on Advances in 2D Materials (IW2DM) organized at Indian Institute of Science Education & Research (IISER) Thiruvananthapuram, India, from 22-23 July, 2019
3. Workshop on Experimental Physics (WEP-202) organized by School of Material Science and Engineering National Institute of Technology Calicut, sponsored by Rashtriya Uchchatar Shiksha Abhiyan, from 02-06 March 2020

10. Career Advancement

Orientation/Induction Programme

1. Four Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" organized by Ramanujan College, University of Delhi in association with MHRD and Pandit Madan Mohan Malviya National Mission on Teachers and Teaching from July 04 – June 01, 2020

FDP

1. Two-week "National Level Faculty Development Programme on Advanced Science and Technology" organized by CCRPED under PMMMNMTT, School of Education, Central University of Kerala in Collaboration with St. Berchmans College, Changanacherry on 3rd to 18th September 2021
2. Two-weeks Faculty Development Programme on "MANAGING ONLINE CLASSES and CO-CREATING MOOCS" organized by Ramanujan College, University of Delhi in association with MHRD and Pandit Madan Mohan Malviya National Mission on Teachers and Teaching from April 20 - May 06, 2020

11. Conferences/Seminars/Workshops Organized

1. Coordinator, RUSA Sponsored International Webinar on Frontiers in Experimental Physics(IWFEP-2020) during 5-6, August 2020, Farook College, Kozhikode
2. Member, Workshop on Quantum mechanics, February 04-05, 2020, Farook College
3. Member, National Workshop on Astronomy and Astrophysics 14th -15th February 2018
4. Member, Teacher Training Program - II on Mathematical Modelling Using Technology Enabled and Student Centered Learning Systems, June 04-05 2022 in Association with University of Calicut, HBCSE-TIFR, KSCSTE

12. Extension Activities (Administration/Cocurricular)

1. Member, Board of Studies, Physics, Farook College (Autonomous)
2. Member, NAAC steering Committee, Farook College
3. Member, FIST Committee, Farook College
4. Member, Education Select Committee, Farook College

13. Awards / Prizes Conferred

1. Bhaskara Advanced Solar Energy (BASE) Fellowship by Indo-U.S. Science and Technology Forum (IUSSTF), Department of Science and Technology, Govt. of India for undertaking six months research internship at LANL, USA under the supervision of Dr. Aditya D. Mohite.
2. Best oral presentation award for the presentation entitled "Tris(acetylacetonato) ruthenium(III) as Cathode Buffer Layer in CuPc/PTCDI-C8 Based Small Molecular Organic Solar Cells" in

14. Author profiles and identifiers

1. Web Page: <https://farookcollege.ac.in/Department/department-of-physics>
2. Google Scholar: <https://scholar.google.com/citations?user=jknHC1sAAAAJ>
3. Linked in: <https://www.linkedin.com/in/yoosuf-ameen-musliyarakath-922062226/>
4. Orcid ID: <https://orcid.org/0000-0003-1364-799X>