

The American College, Madurai
FACULTY PROFILE

Name : Dr. D. RACHEL MALINI

Date of Joining : 25. 11. 2013

Designation : Assistant Professor

Department : Physics

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I. Education Qualification:

Degree	Subject	College/University & Place	Year Completed
B.Sc	Physics	V.V.Vanniaperumal College, Virudunagar	1992
M.Sc	Physics	Alagappa University, Karaikudi	1994
M.Phil	Physics	Alagappa University, Karaikudi	1996
Ph.D.	Physics	Alagappa University, Karaikudi	2013
TNSET	Physics	Mother Teresa University, Kodaikanal	2018

II. Other Qualification:

Degree	Subject	College/University & Place	Year Completed
BCS	Christian Studies	Senate of Serampore College, West Bengal	2021

Specialization in Research:

- Thin films - Preparation, Characterization and Application
- Electrochemical/ Electrochromic studies

Research Interests:

- Nanomaterials
- Dye-sensitized Solar Cells

Any Other Work Experience:

Designation	Institution / Company	Year – From (month/year) To (month/year)
Lecturer	NMSSV College, Madurai	Sept 2001 to Nov 2013

Administrative / Academic Position/s (held / currently holding):

Positions held / currently holding	Year – From (month/year) To (month/year)
YRC Programme Officer, NMSSV College, Madurai	From June 2009 to Nov 2013
Programme Officer of APAC (AIDS Prevention and Control) project (Funded by VHS-USAID), NMSSV College, Madurai	From June 2006 to April 2009
Mentor	From June 2015 to Till date
Member-Board of Studies, Physics	From November 2013 to Till date

Membership in Professional Bodies:

(Include Board of Studies/ journal/ article)

Positions held / currently holding in Professional Body	Year – From (month/year) To (month/year)
Reviewer , Vacuum (Elsevier Journal) ISSN: 0042-207X	From June 2018 to April 2019
Reviewer, JVST B Journal ISSN : 0734-211X	From June 2020 to 2021
Panel member, V.V.Vanniaperumal college, Virudhunagar	From June 2015 to November 2016
Panel member, The Standard Fireworks Rajaratnam College for Women, Sivakasi	From June 2013 to November 2013
Panel member, Sri Sankara Arts and Science College, Kanchipuram	From June 2016 to April 2018
Panel member, A.V.C. College, Mayiladuturai	From June 2016 to 2019
Panel member, Sri S. Ramasamy Naidu Memorial College, Sattur	From June 2017 to November 2017
Panel member, P.S.G.R.Krishnammal College for Women, Coimbatore	From June 2017-November 2019
Panel member, Mother Teresa Women's University, Kodaikanal	From June 2017- November 2017
PG Project Evaluator, The Standard Fireworks Rajaratnam College for Women, Sivakasi	From December 2016-April 2017
Panel member, Thiagarajar College, Madurai	From December 2018-
Panel member, Arul Anandar College, Karumathur	From April 2019-
Subject Expert in Staff Selection Committee, Madurai Sivakasi Nadar Pioneer Meenakshi Women's College, Poovanthi, Sivaganga District	From December 2018 to April 2019

Publications:

Articles Published in International Journals:

1. “Annealing effects on V_2O_{5-x} thin films deposited by non reactive sputtering”, D. Rachel Malini, R.Sivakumar, C. Sanjeeviraja, *Nanosystems: Physics, Chemistry, Mathematics*, (2016) 547-552; *Peer Review Journal* ; ISSN 2220-8054 DOI: [10.17586/2220-8054-2016-7-3-547-552](https://doi.org/10.17586/2220-8054-2016-7-3-547-552)
2. “ Properties of V–Ce mixed-oxide thin films deposited by RF magnetron sputtering”, D. Rachel Malini and C. Sanjeeviraja - *Materials Science in Semiconductor Processing* 19 (2014) 40-49. *Peer Review Journal* ; Impact factor: 2.82; ISSN 13698001; DOI: [10.1016/j.mssp.2013.10.004](https://doi.org/10.1016/j.mssp.2013.10.004)
3. “Effect of RF power on electrochromic V–Ce mixed oxide thin films”, D. Rachel Malini and C. Sanjeeviraja - *Electrochimica Acta* 104 (2013) 162-169. *Peer Review Journal*; Impact factor: 6.216; ISSN 0013-4686; DOI: [10.1016/j.electacta.2013.04.038](https://doi.org/10.1016/j.electacta.2013.04.038)
4. “ H^+ - intercalation Electrochemical/Electrochromic Properties of V-Ce Mixed Oxide Thin Films”, D. Rachel Malini and C. Sanjeeviraja - *International Journal of Electrochemical Science* 8 (2013) 1349-1365. *Peer Review Journal*; Impact factor: 1.573; ISSN 1452-3981; <http://www.electrochemsci.org/papers/vol8/80101349.pdf>

Articles published in National Journals/ Conference Proceedings:

1. “A Study on Cu Doped ZnO Nanoparticles synthesized by Sol-Gel method” in the proceedings of International Conference on International conference on Role of Physics in Modern Technologies-2024 (ICRPMT’25) organized by PG & Research Department of Physics, The American College, Madurai on 08-09, Jan 2025.
2. “Preparation and Characterization of NiO nanoparticles by Green Synthesis Route”, in the proceedings of International Conference on Recent Advances in Physics-2024 (ICRAP’24) organized by PG & Research Department of Physics, The American College, Madurai on 10-11, Jan 2024.
3. “Synthesis and Characterization of ZnO nanoparticles by using Hibiscus Sabdariffa leaf extract” in the proceedings of International Conference on Recent Advances in Physics-2024 (ICRAP’24) organized by PG & Research Department of Physics, The American College, Madurai on 10-11, Jan 2024.
4. “Structural, thickness and FTIR studies on annealed CeO_2 thin films” in the proceedings of International Conference on Smart Materials and Bio-molecules (ICSMB’23) held at The American College, Madurai during 9-10, January, 2023.

5. “Studies On Annealed ZnO:V Thin Films Deposited By Nebulised Spray Pyrolysis Method” D. Rachel Malini- AIP Conference Proceedings, Solid State Physics: Proceedings of the 62nd DAE Solid State Physics Symposium (DAE-SSPS-2017) 1942 (2018) 080021 . (Impact factor: 0.40); *Conference proceedings*
6. „Structural and Optical properties of as-deposited and annealed V₂O₅ thin films deposited by non reactive sputtering“, D.Rachel Malini, R.Sivakumar and C.Sanjeeviraja- Proceedings of National conference on Advanced Materials: Processing and Characterization (AMPC-2017), Eds. J.Hemalatha, M.C.Santhosh Kumar, Publisher: Excel India Publishers, New Delhi (2017) 75-80 (ISBN: 9789386724045); *Conference proceedings*
7. “Comparative study of structural, optical and impedance measurements on V₂O₅ and V-Ce mixed oxide thin films” D. Rachel Malini and C. Sanjeeviraja- AIP Conference Proceedings, Solid State Physics: Proceedings of the 59th DAE Solid State Physics Symposium (DAE-SSPS-2014) 1665 (2015) 080042-3. (Impact factor: 0.40); *Conference proceedings*
8. “ Optical and electrochromic characterization of V-Ce mixed oxide thin films”, D. Rachel Malini and C.Sanjeeviraja - Proceedings of International Conference on Research in Condensed Matter Physics, Eds. Rita John, Tamio Ecdio, Publisher: Excel India Publishers, New Delhi (2012) 145-147 (ISBN: 978-93-82062-63-9); *Conference proceedings*
9. “Annealing effects on sputtered V₂O₅ thin films”, D. Rachel Malini and C.Sanjeeviraja - Proceedings of International Conference on Advanced materials(ICAM-2012),Eds. V. Joseph, S. Moorthy Babu, S. Balakumar, J. Madhavan, J. Merlin Shyla, Publisher: Department of Physics, Loyola College, Chennai (2012) 172-176 (ISBN: 9788190949019); *Conference proceedings*
10. “பழியம் - சீரியம் கலப்பு ஆக்ஸைடு மென்படலங்களின் மின்நிறமப் பண்புகள் பற்றிய ஓர் ஆய்வு” Collection of abstracts of 12th Tamil Nadu Science Congress, Eds. C.Anbazhagan, C.Venkatachalam, A. Muthusami, M. Tamilmaran (2012) 300-301 (ISBN: 139788191050851); *Conference proceedings*
11. “Characterization of Ce-V mixed oxide thin films prepared by RF magnetron sputtering”, D. Rachel Malini and C.Sanjeeviraja - Collection of abstracts of International Conference on Advanced Materials and its applications(ICAMA-2011), Eds: S.Selvasekarapandian, T. Vasudevan, S.R. Srikumar, E.R.Nagarajan, M.Raja, V.Devadoss, M. Prabu, A.Murugan, N.Rajeswari, S.Karthickprabhu (2011) 135 (ISBN: 9788192124902); *Conference proceedings*
12. “வானொலி அதிர்வெண் மேகன்டரான தெளித்தல் முறையில் படிவிக்கப் பட்ட சீரியம் - பழியம் கலப்பு

ஆக்ஸைடு மென்படலங்கள் பற்றிய ஓர் ஆய்வு” Collection of abstracts of 11th Tamil Nadu Science Congress, Eds: N.C. Nagarajan, R. Seerangarajan, P. Shanmugavadivu (2011) 10 (ISBN: 9798177359861); *Conference proceedings*

13. “ Preparation And Characterization Of RF Sputtered Ce-V Mixed Oxide Thin Films”, D. Rachel Malini and C.Sanjeeviraja - AIP Conference Proceedings, Solid State Physics: Proceedings of the 56th DAE Solid State Physics Symposium (DAE-SSPS-2011) 1447 (2012) 633-634. (Impact factor: 0.40); *Conference proceedings*
14. “ Effect of substrate temperature on the characteristics of Vanadium Pentoxide thin films prepared by RF magnetron sputtering”, D. Rachel Malini, M. Jayachandran and C.Sanjeeviraja - Proceedings of International Conference on Nanomaterials and Nanotechnology (NANO 2010): Synthesis and characterization of Nanostructured Materials, Eds. V.Rajendran, B.Hillbrands, K.Saminathan and K.E.Geckeler, Publisher: Macmillan Publishers India Ltd.(2010) 453-458 (ISBN:023-033-193-9); *Conference proceedings*
15. “ A study on Structural and Optical properties of annealed Vanadium pentoxide thin films prepared by RF Magnetron sputtering”, D. Rachel Malini, M. Jayachandran and C.Sanjeeviraja - Proceedings of the 54th DAE Solid State Physics Symposium (DAE-SSPS-2009) (2009) 595-596. (Impact factor: 0.40); *Conference proceedings*

Conference / workshop/ Seminar Presentations:

Name of the Seminar/Conference/Symposium a Workshop etc.,	Name of the Sponsoring Agency	Title of paper	Institution, Place and Date
International Conference on International conference on Role of Physics in Modern Technologies-2024 (ICRPMT'25)	The American College, Madurai	A Study on Cu Doped ZnO Nanoparticles synthesized by Sol-Gel method	The American College, Madurai on 08-09.01.2025
International Conference on Recent Advances in Physics-2024 (ICRAP'24)	The American College, Madurai	Synthesis and Characterization of ZnO nanoparticles by using Hibiscus Sabdariffa leaf extract	The American College, Madurai on 10-11.01.2024
International Conference on Recent Advances in Physics-2024 (ICRAP'24)	The American College, Madurai	Preparation and Characterization of NiO nanoparticles by Green Synthesis Route	The American College, Madurai on 10-11.01.2024.

International Conference on Smart Materials and Bio-molecules (ICSMB'23)	The American College, Madurai	Structural, thickness and FTIR studies on annealed CeO ₂ thin films	The American College, Madurai during 9-10.01.2023
62nd Department of Atomic Energy -Solid State Physics Symposium (DAE-SSPS 2017)	Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Govt. of India	Studies On Annealed ZnO:V Thin Films Deposited By Nebulised Spray Pyrolysis Method	Bhabha Atomic Research Centre (BARC), Mumbai , 26-30.12.2017
17 th International conference on thin films (ICTF17)	CSIR- National Physical Laboratory(NPL), Indian Vacuum Society(IVS), DST, DRDO, ISRO, BRNS, AVS, BARC, ELSEVIER, Springer etc	Structural and vibrational studies of RF sputtered V-Ce mixed oxide thin films	CSIR-NPL, New Delhi, on14-17.11.2017
National conference on Advanced Materials: Processing and Characterization	TEQIP-II	Structural and Optical properties of as-deposited and annealed V ₂ O ₅ thin films deposited by non reactive sputtering	NIT, Tiruchirappalli ,27-28.02. 2017
National conference on Advanced Materials: Processing and Characterization	TEQIP-II	Structural and Optical Properties of ZnO layered TiO ₂ Photo Electrode for Dye Sensitized Solar Cell	NIT, Tiruchirappalli ,27-28.02. 2017
National conference on Computational and experimental Physics of Functional materials	DST, SERB	Studies on performance of Dye sensitized ZnO solar cell prepared by dip coating technique	KSR College of arts and science for women, Namakkal, 16-17.12. 2016
International Conference on Nano Materials and Nanotechnology (NANO 2015)	IUPAC	Annealing effects on V ₂ O ₅ thin films deposited by non reactive sputtering	Centre for Nano Science and Technology, K.S.R. College of Technology, Tiruchengode, 7-10.12.2015
59 th Department of Atomic Energy -Solid State Physics Symposium (DAE-SSPS 2014)	Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Govt. of India	Comparative study of structural, optical and impedance measurements on V ₂ O ₅ and V-Ce mixed oxide thin films	VIT University, Vellore, 16-20.12. 2014

International Conference on Research in Condensed Matter Physics (ICCMP-2012)	University of Madras, DST(SERB), DST(PURSE), DST-JSPS, DRDO, DBT	Optical and electrochromic characterization of V-Ce mixed oxide thin films	Department of Theoretical Physics, University of Madras, Chennai and the Graduate School of Engineering, Mie University, Japan, 1-3.10. 2012
12 th Tamil Nadu Science Congress	Periyar university, Salem in collaboration with Swadeshi Science Movement, Karaikudi	பழியம் - சீரியம் கலப்பு ஆக்ஸைடு மென்படலங்களின் மின்நிறமப் பண்புகள் பற்றிய ஓர் ஆய்வு	Periyar university, Salem , 23-25.08. 2012
International Conference on Advanced materials (ICAM-2012)	UGC, CSIR, DST, DRDO, INSA, BRNS, TNSCST	Annealing effects on sputtered V2O5 thin films	Department of Physics, Loyola College, Chennai, 5-7.01. 2012
56 th Department of Atomic Energy -Solid State Physics Symposium (DAE-SSPS 2011)	Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Govt. of India	Preparation And Characterization Of RF Sputtered Ce-V Mixed Oxide Thin Films	SRM University, Kattankulathur, 19-23.12. 2011
11 th Tamil Nadu Science Congress	Gandhigram rural university, Gandhigram in collaboration with Swadeshi Science Movement, Karaikudi	வானொலி அதிர்வெண் மேகன்ட்ரான தெளித்தல முறையில் படிவிக்கப் பட்ட சீரியம் - பழியம் கலப்பு ஆக்ஸைடு மென்படலங்கள் பற்றிய ஓர் ஆய்வு	Gandhigram rural university, Gandhigram, 26-27.06. 2011
International Conference on Advanced materials and its applications (ICAMA-2011)	DST, CSIR, BRNS, DRDO	Characterization of Ce-V mixed oxide thin films prepared by RF magnetron sputtering	Multifunctional Materials Research Centre& Department of Physics, Department of Chemistry, Kalasalingam University, Krishnankoil, 4-5.03. 2011
International Conference on Nano Materials and Nanotechnology (NANO 2010)	IUPAC	Effect of substrate temperature on the characteristics of Vanadium Pentoxide thin films prepared by RF magnetron sputtering	Centre for Nano Science and Technology, K.S.R. College of Technology, Tiruchengode, 13-16.12.2010

54 th Department of Atomic Energy -Solid State Physics Symposium (DAE-SSPS 2009)	Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE), Govt. of India	A study on Structural and Optical properties of annealed Vanadium pentoxide thin films prepared by RF Magnetron sputtering	The Maharaja Sayajirao University of Baroda, Vadodara, 14-18.12.2009
National Conference on Recent Advances in Textile and Electrochemical Science (RATES-2009)		A comparative study on Structural, Morphological and Optical properties of as- deposited with annealed V ₂ O ₅ thin films prepared by RF Magnetron sputtering	Department of Industrial Chemistry, School of Chemistry, Alagappa University, Karaikudi, 4-5.12. 2009
National Conference on „Nano Materials for energy conversion and conservation“ (NMECC-‘09)	UGC	Annealing effect on Structural and Optical properties of V ₂ O ₅ thin films	PG Department of Physics, Bishop Heber College, Tiruchirapalli, 26.03.2009
National Conference on Nano Material (NCN 2008)	DST, BRNS, CSIR	Structural and Optical properties of annealed Vanadium Pentoxide thin films prepared by RF magnetron sputtering	Department of Physics, Karunya University, Coimbatore, 17-18.10.2008

Lectures / Talks given:

Name of the Seminar/Conference/Symposia Workshop etc.,	Title of paper	Institution, Place and Date
Guest lecture	Fabrication and Characterization of Electrochromic Devices	Department of Physics, Mannar Thirumalai Naicker College, Madurai , 16.03.2020
Solarna (Physics Association)	Dye Sensitized Solar Cell	Department of Physics, CSI College of Arts & Science for Women, Madurai, 13.02.2019
Eureka Physics Association	Strategies for enhancing efficiency of dye-sensitized solar cell	Department of Physics, N.M.S.Sermathai Vasan College for Women, Madurai, 22.02.2018
PIO-GRAVITA association	Introduction to Solid State Electronics	Department of Physics, Madurai Sivakasi Nadar Pioneer Meenakshi Women's College, Poovanthi, Sivaganga District, 26.08.2017
Alumni Association	Electrochromic Thin Films	Department of Physics, V.V. Vanniaperumal College for Women, Virudhunagar, 26.09.2014

Awards / Fellowships:

	Name of the award/ fellowship	year
National	„ Best Poster Award 2009 “ for the poster presented in 54 th Department of Atomic Energy-Solid State Physics Symposium (DAE-SSPS 2009) sponsored by the Board of Research in Nuclear Sciences, DAE, Government of India held at The Maharaja Sayajirao University of Baroda, Vadodara	2009

Research activities of the student under guideship

Title	M. Phil / M.Sc/ B.Sc	Please tick if it is collaborative
Characterization of as-deposited and annealed Niobium oxide thin films	M.Phil	
Study on annealed Vanadium doped ZnO thin films prepared by Nebulized Spray Pyrolysis method	M.Phil	
Effect of deposition temperature on Vanadium doped ZnO thin films deposited by Nebulized Spray Pyrolysis method	M.Phil	
Preparation and Characterization of TiO ₂ thin films for designing a dye-sensitized solar cell	M.Sc	
Study on annealed Vandium doped ZnO thin films prepared by Nebulized Spray Pyrolysis method	M.Sc	
Enhancing the efficiency of dye-sensitized solar cell by ZnO dip coating of TiO ₂ photoelectrode	M.Sc	
Fabrication of dye-sensitized solar cell	M.Sc	
Investigations on CeO ₂ Thin Films for High Performance Gas Sensing Applications	M.Sc	
Comparative Analysis of ZnO Nanoparticles and PVA / ZnO Nanocomposities for Electrochemical Activities	M.Sc	
Preparation and Characterization of Metal Oxide - Activated Working Electrodes for Supercapacitor Applications	M.Sc	
Investigation on the Catalytic Performance of MoO ₃ Nanoparticles Prepared by Various Synthesis Methods	M.Sc	
Effect of Cu Doping on ZnO Nanoparticles in view of Photocatalytic Performance	M.Sc	
Hydrothermal Synthesis of CuO Nanoparticles for Counter Electrodes in Dye Sensitized Solar Cell	M.Sc	
A Comparative Study on Anti Bacterial Activities of Molybdenum Nanoparticles Prepared by Green Synthesis Process	M.Sc	

Any other activities / information / academic credentials you would like to mention:

List of workshop/ Conferences/ seminars/Quiz participated:

1. One-day Training on POSH Act 2013 conducted by Tech Trainers And Testers Pune on 26, July 2025.
2. Haggai National Workshop on 1-3, October 2025.
3. Participation in Magalir Thiruvizha for women readers of Hindu Tamil Thisai conducted by hindu Tamil Thisai, Madurai in The American College on 3rd December 2023.
4. Participation in Five day Capacity Building Workshop on “Effective Research Methodology and Publication Strategies” online Faculty Development Programme jointly organized by AIACHE, New Delhi and Madras Christian College, Chennai from 27th February - 3rd March 2023.
5. Participation in One day workshop on “ Art and Science of Methodical Scientific Writing & Publishing in a High Impact Journal” conducted by IQAC and Office of the Dean Research, The American College, Madurai on 06.03.2023.
6. Participation in Seminar on “Sexual Harassment of Women at Workplace” organized by Women’s Studies Centre, Madurai Kamaraj University, Madurai with the support of Rashtriya Uchchatar Shiksha Abhiyan (RUSA), held on 30th August 2023.
7. Member in preparing UG Practical Physics Lab Manuals during the academic year 2022-23.
8. In-Service Teacher Training Programme in Physical Sciences conducted by Tamil Nadu State Council For Higher Education at Sri Meenakshi Govt. Arts College for Women (A), Madurai on 05-06.05.2022.
9. Supportive Lab Manual preparation for I UG Chemistry Students
10. Participation in Pedagogical workshop on Relativistic and Magnetic Astrophysics sponsored by DST held at The Department of Physics, The American College, Madurai on 18.03.2022.
11. Participation in “Vigyan Sarvatra Pujiyate”, Festival of SCoPE for All at The American College, Madurai supported by DST, Dept. of Biotechnology, Ministry of Earth Sciences, Dept. of Space, ISRO, DAE, ICMR, DRDO, AICTE, etc., during 22-28.02.2022.

- 12.** Participation in National Webinar on "Mobile Astronomy", organized by PG & Research Department of Physics, The American College, Madurai on 28.07.2021.
- 13.** Participation in International Webinar on “Current Status and Future Prospects of Perovskite Solar Cells” organized by Centre of Excellence for Energy Research and Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology (Deemed to be University), Chennai on 30.06.2021.
- 14.** Participation in National webinar on “A Pandemic year for Women: What are we learning?” conducted by The Ladies Club of The American College on 30.06.2021.
- 15.** Participation in National virtual conference on “Advanced Functional Composite Materials and Applications” organized by Department of Physics, AMET (Academy of Maritime Education and Training), Deemed to be University during 28 – 29.06.2021.
- 16.** Participation in International Webinar on “Nanostructures for Applications Fabricated via the Electrospinning Technique” organized by Department of Physics, St. Mary’s College (autonomous), Thoothukudi on 24.06.2021.
- 17.** Participation in Webinar on “Energy Materials” organized by Centre of Excellence for Energy Research and Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology, Chennai on 04.06. 2021.
- 18.** Participation in National webinar entitled “Advanced Nanomaterials for Sustainable Development and Energy Applications” organized by Department of Physics, SRM Institute of Science and Technology, Ramapuram Campus, Chennai on 28.05.2021.
- 19.** Participation in International Webinar on “Sustainable Materials and Technologies for Bio and Energy Applications, (SMTBEA-2021)” organized by Department of Electronics & Communication Engineering & SSN RC, SSN College of Engineering, Kalavakkam during 19-21.05.2021.
- 20.** Participation in Indo-Korea Virtual International Webinar on “ Development of Advanced Materials for Future Technologies (DAMFT-2021)” organized by KAIST, Daejeon, South Korea and Vellore Institute of Technology, Chennai, India during 14-15.05.2021.
- 21.** Participation in Webinar on “ Lead the Life in Style” conducted by Ladies club of The American College on 01.02.2021.

- 22.** Participation in Webinar on “Recent Developments in Supercapacitors and Supercapatteries” organized by Department of Physics & Chemistry, Sona college of arts and science, Salem on 09.01. 2021.
- 23.** Webinar on “Recent Advances in Nanoscience and It’s Applications” organized by Special Centre for Nano Sciences, JNU, New Delhi during 27 - 28.07. 2020.
- 24.** National webinar entitled “Space-2.0” organized by the Department of Science, St.Joseph’s College of Engineering, Chennai on 25th July 2020.
- 25.** International Webinar on "Shockley Queisser Limit and Emerging Photovoltaic Technologies” organized by Department of Physics, Sri Meenakshi Arts College for Women(A), Madurai on 25.07.2020.
- 26.** National webinar entitled “Advanced Materials and Nanotechnology” organized by the Department of Physics, Islamiah College, Vaniyambadi on 22nd July 2020.
- 27.** International Webinar on "Carbon Nanostructures and its Applications” organized by Department of Science, St.Joseph’s College of Engineering, Chennai during 20-21, July 2020.
- 28.** FDP on “ Advanced Materials for Energy Storage Applications” organized by Department of Physics Velammal Institute of Technology, Chennai during 18-22, July 2020.
- 29.** FDP on “ Digital Skills for Enhanced Teaching and Learning” organized by PG & Research Department of Historical Studies, Nandanam College, Chennai during 13-17, July 2020.
- 30.** Virtual workshop on Google Classroom organized by Jayaraj Annapackiam CSI Polytechnic College, Nazareth on 10.07.2020.
- 31.** Webinar on “Smart Materials and Applications” organized by Department of Physics, Kamaraj College, Thoothukudi on 09.07.2020.
- 32.** Four days webinar on “Advanced Functional Materials” organized by Department of Basic Science (Physics), PSG Polytechnic College, Coimbatore during 6-9 July, 2020.
- 33.** International Webinar on "Recent Advances in Materials Science and Technology” organized by Department of Physics, Aditanar College of Arts and Science, Virapandianpatnam, Tiruchendur on 26.06.2020.

34. Successful completion of "COVID-19 Awareness Quiz" conducted by IQAC in collaboration with Departments of Biotechnology and Zoology, St. Joseph's College, Irinjalakuda, Kerala on 27.06.2020. <https://forms.gle/Q955qpb4xv9p1aVB9>
35. International Webinar on "Thin-Film Deposition Techniques and its Applications" organized by PG & Research Department of Physics and Internal Quality Assurance Cell (IQAC), The Madurai Diraviyam Thayumanavar Hindu College, Tirunelveli on 25.06.2020.
36. Webinar on “ Electrospun 1D-Nanomaterials and their applications in DSSC” organized by Department of Physics, Saveetha Engineering College, Chennai on 23.06.2020.
37. International webinar on Recent Advances in Materials Science (IWRAMS-2020) organized by Department of Materials Science, School of Technology Central University of Tamil Nadu & Abinnovus Consulting Pvt. Ltd during 18-22.06.2020.
38. International Webinar on "Recent Trends in Advanced Material Science", organized by Department of Physics, The American College, Madurai on 19.06.2020.
39. Webinar on “Introduction to Metal Oxide Nanostructures for Sensing Applications” organized by Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology, Chennai on 15.06.2020.
40. International Webinar on “Recent Trends in Physics” organized by Department of Physics with Computer Application & IQAC, St. Joseph’s College, Kovur, Chennai on 12.06.2020.
41. International Webinar on " Nanostructured Metal Oxides For Supercapacitor Applications”(IWNMS 2020) organized by Department of Physics, Trinity College for women, Namakkal on 12.06.2020.
42. International webinar on “Advances in Materials Science” organized by Directorate of Distance Education and Department of Physics, Alagappa University, Karaikudi on 10.06.2020.
43. Webinar on “ Women at risk blossom” conducted by Ladies club of The American College on 09.06.2020.
44. International webinar on “ Functional Properties and Bandgap Engineering of ZnO-GaN Alloys” organized by PG & Research Department of Physics, Jayaraj Annapackiam College for women, Periyakulam on 08.06.2020
45. Workshop on “How to Conduct Classes Using Google Meet” organized by Department of Computer Applications, DDGD Vaishnav College, Chennai on 07.06.2020.
46. Webinar on “PVD methods in thin film deposition” organized by Department of Physics, Kalasalingam Academy of Research and Education, Krishnankoil on 06.06.2020.

- 47.** International webinar on Recent Advances in Materials Science and Nanotechnology organized by Department of Physics, Bannari Amman Institute of Technology, Sathyamangalam during 04-06.06.2020.
- 48.** International webinar on Nanoscience-2020 organized by Department of Physics, Christian College, Kattakada, Kerala supported by NANOSMAT, Global, UK during 03-04.06.2020.
- 49.** International webinar on Advanced Materials (IWAM-2020) organized by Department of Physics, LRG Government Arts College (W), Tirupur on 03.06.2020.
- 50.** Webinar on " Graphene based Nanocomposites for Energy Storage Applications " organized by the Department of Physics, V.O.Chidambaram College, Tuticurin on 01.06. 2020.
- 51.** International webinar on Cyclic and Linear Sweep Voltammetry – Fundamentals & Applications conducted by Department of Chemistry, Bhaktavatsalam Memorial College for Women, Korattur, Chennai on 31.05. 2020.
- 52.** International Webinar on Recent Trends in Applied Sciences organised by the Senthil Research Advocacy Forum, V.H.N.Senthikumara Nadar College, Virudhunagar during 29-30.05.2020.
- 53.** 2nd international workshop on Smart Materials Sensors and Energy Devices (SMSSED 2020) organized by Dept of Electronics and Communication engineering, SSN College of Engineering, Kalavakkam, Chennai during 25-30.05.2020.
- 54.** Webinar conducted by Ladies club of The American College on 27.05.2020.
- 55.** Webinar on “ Supercapacitors: New Age Energy Storage Devices” conducted by Department of Physics, Ayya Nadar Janaki Ammal College, Sivakasi on 19.05.2020.
- 56.** Department of Biotechnology, Govt. of India, New Delhi sponsored International Conference on Advanced Materials (ICAM 2020) at St.Mary’s College, Thoothukudi, Tamil Nadu, India during 30-31, January 2020.
- 57.** Leadership training by Global Leadership Summit (GLS) held at Hallelujah Tower, Madurai during 08-09.02.2019.
- 58.** 17th International conference on thin films (ICTF17) pre-conference workshop on Thin Film Solar Cells organized by CSIR-National Physical Laboratory, New Delhi in collaboration of Indian Vacuum Society at CSIR-NPL, New Delhi on 13.11.2017 sponsored by DST, DRDO, ISRO, BRNS, AVS, BARC, ELSEVIER, Springer etc.
- 59.** Vigilance Awareness Week-2017 with the theme “ My Vision- Corruption free India” conducted by NTPL, Tuticorin and The American College, Madurai on 25.10.2017.
- 60.** AIACHE Golden Jubilee Grand Finale Celebrations held at The American College, Madurai from 7th to 11th Oct, 2016.

- 61.** Faculty-Student Training Programme in Professional Ethics & Values – Developing New Strategies for Future Leadership in India in Governance & Public Service organized by All India Association for Christian Higher Education(AIACHE), New Delhi at AIACHE Secretariat, New Delhi during 12-18 Oct 2015.
- 62.** Human Values Development Programme (HVDP) organized by All India Association for Christian Higher Education(AIACHE), New Delhi held at Kodaikanal during 4-7, Aug 2014.
- 63.** State level seminar on „ Nano Materials“ organized by Department of Physics, V.V.Vanniaperumal College for women, Virudhunagar, Tamil Nadu, India on 5.2.2013.
- 64.** One day district level study camp conducted by Youth Red Cross Zone, MKU and Indian Red Cross Society, Madurai District Branch at Vivekananda College, Madurai on 31st Jan 2012 sponsored by IRCS.
- 65.** State level seminar on Utilisation and Conservation of Energy conducted by N.M.S.Sermathai Vasan College for women, Madurai on 8th Sept 2011 sponsored by TNSCST, Chennai and NCSTC, New Delhi.
- 66.** „YRCS in the emerging era of ecological disasters“ conducted by Youth Red Cross Society, Thiagarajar College, Madurai on 18.2.2010.
- 67.** Homi Bhabha Centenary Celebration organized by The American College, Madurai, Tamil Nadu, India on 30.11.2009.
- 68.** National workshop on „ Theory and practice of X-ray diffraction techniques“ (TPXRDT-2009) organized by School of Physics, Alagappa University, Karaikudi, Tamil Nadu, India on 13-17, July 2009.
- 69.** State level seminar on „Thin Films and their applications“ organized by the PG and Research Department of Lady Doak College, Madurai, Tamil Nadu, India on 20.2.‘09.
- 70.** UGC-SERO, Hyderabad sponsored State level conference on „Nano Materials“ (NANO-2007) at The S.F.R. College, Sivakasi, Tamil Nadu, India during 6-7, March 2007.
- 71.** UGC sponsored Regional seminar on „Recent trends in Condensed matter Physics“ at V.V.Vanniaperumal College for Women, Virudhunagar, Tamil Nadu, India during 17-19, August 2005.

Organizing seminars conference and workshops:

1. ORGANIZING COMMITTEE MEMBER, Two Day International Conference on Role of Physics in Modern Technologies (ICRPMT'25) organized by PG & Research Department of Physics, The American College, Madurai on 08-09, Jan 2025.
2. ORGANIZING MEMBER, Debate titled "How can we eliminate violence in view of men and women" by students from Centre for Gender Studies, The American College, organized by Gender Studies of American College on 7, December 2024.
3. ORGANIZING MEMBER, Awareness program on "Ready to React: Managing Common Emergencies Anytime, Anywhere" by Dr. N. Uwaraja, Consultant Emergency & Critical Care Physician, Bharathi Infinity Hospital, organized by the Women's forum and Gender Studies of American College on 8, January 2025.
4. ORGANIZING MEMBER, International Women's day Celebration - "Vaadi Rasaathi", a historic world record attempt by conducting various competitions in collaboration with YOU AND ME, Event Management, Madurai organized by Gender Studies of American College on 5, March 2025.
5. ORGANIZING MEMBER, Awareness program on "Anti-Human Trafficking" and International Women's day Celebrations in collaboration with District Legal Services Authority, Madurai in which Mr. A. Saravana Senthil Kumar, Secretary / Sub Judge, DLSA, Madurai, Mrs. D. Elakiyaa, Asst. Commissioner of Police, Anti Dowry Cell, Madurai city, Mr. M. Raja, Penal Lawyer, International Justice Mission, Chennai, Mrs. S. Diana Punithavathy, M.S.W Centre Administrator, One Stop Centre, Department of Social Welfare and Women Empowerment, Madurai and Mr. P. Uma Sankar, Panel Advocate, DLSA, Madurai delivered talks and was organized by the Women's forum of American College on 6, March 2025.
6. ORGANIZING MEMBER, Zumba Dance by Mrs Sindhu Selvaraj Zumba Trainer organized by Gender Studies of American College on 16, December 2023.
7. ORGANIZING MEMBER, Special Lecture on "Gender Sensitization" by Ms. Nirupama Jayaraman, Graduate Researcher University of Illinois, Chicago organized by Gender Studies of American College on 16, December 2023.
8. ORGANIZING COMMITTEE MEMBER, Awareness program on "Health & Hygiene" by Mrs. K. Nathezhtha, Team leader, Bella Premier, Dindigul and Mrs. E. Pavithira, Trainer, Bella Premier, Dindigul, organized by the Women's Forum of The American College, Madurai on 6, January 2024.
9. CHAIRPERSON, Two Day International Conference on Recent Advances in Physics-2-24 (ICRAP'24) organized by PG & Research Department of Physics, The American College, Madurai on 10-11, Jan 2024.

- 10. ORGANIZING COMMITTEE MEMBER, Two Day International Conference on Recent Advances in Physics-2024 (ICRAP'24)** organized by PG & Research Department of Physics, The American College, Madurai on 10-11, Jan 2024.
- 11. ORGANIZING MEMBER, Workshop on “Gender & Welbeing”** organized by Gender Studies of American College on 10, February 2024.
- 12. JUDGE, “MPS Science Glanza'24”** held at Madurai Public School on 17.02.2024.
- 13. ORGANIZING MEMBER, International Women's day Celebration-TALENT HUNT- 2024** in collaboration with JC TV, Madurai in which Dr. Ruksana Raihan, Associate Professor Department of Microbiology, US – Bangla, Medical College and Hospital, Bangladesh, Mr. K. Samidurai, Advocate State President, Indian Association of Lawyers, Mr. Joseph Kennett, MBA IAF and Dr. David Premkumar, Consultant, Medical Oncologist, Vadamalayan Hospitals delivered talks and was organized by the Women's Forum of The American College, Madurai on 15, March 2024.
- 14. ORGANIZING MEMBER, Documentary screening on ‘ Gender Equal Practices to Create Gender Equal Society’** organized by the Women's forum and Gender Studies of American College jointly with Uliyin Oli, Centre for women's studies, Lady Doak College, Madurai on 12, September 2024.
- 15. ORGANIZING MEMBER, One day Workshop on “Gender Issues and Protective Acts”** by Advocate S. Selvagomathi, Managing Trustee, Justice Shivaraj Patil Foundation, Joint Director, SOCO Trust organized by the Women's forum and Gender Studies of American College on 27, September 2024.
- 16. ORGANIZING COMMITTEE MEMBER, Joint interactive session on ‘ Safe Spaces for All’** (In collaboration with the forum “ Uliyin Oli” of Centre for women's studies, Lady Doak College, Madurai and Women's Forum of The American College, Madurai) on 15, November 2022.
- 17. ORGANIZING COMMITTEE MEMBER, Awareness program on “Know Yourself ”** by Mrs. Leema Peter, Psychologist & Counsellor, Tiruchirappalli on commemorating the International day for Elimination of Violence Against Women organized by the Women's Forum of The American College, Madurai on 21, November 2022.
- 18. ORGANIZING COMMITTEE MEMBER, Charitable activity by visiting Birds Nest, an orphanage at L.P.N.G.Hr.Sec.School, K.Pudhur, Madurai** organized by the Women's Forum of The American College, Madurai on 21, December 2022.
- 19. ORGANIZING COMMITTEE MEMBER, Two Day International Conference on Smart Materials and Biomolecules (ICSMB'23)** held at Department of Physics, The American College, Madurai on 9-10, Jan 2023.
- 20. ORGANIZING COMMITTEE MEMBER, Fem Fiesta – 2023, in Commemoration of The International Women's Day 2023** in which Adv. S. Selva Gomathi, Joint Director, SOCO Trust, Madurai, delivered a talk on “Walk with Dignity – Today's Contexts”, organized by the Women's Forum of The American College, Madurai on 8, March 2023.

- 21. ORGANIZING COMMITTEE MEMBER, One day workshop on “Pebbles and Warli Painting” by Mr. A. Arun Kumar, South Tamilnadu Promotion Manager, KOKUYO CAMLIN LTD, organized by the Women’s Forum of The American College, Madurai in collaboration with KOKUYO Camlin Ltd. on 15, March 2023.**
- 22. ORGANIZING MEMBER, Awareness Programme on “Fostering Gender Studies” by Dr. R. Rohini organized by Gender Studies of American College on 2, September 2023.**
- 23. ORGANIZING COMMITTEE MEMBER, One day workshop on “Fabric Tanjore Painting” by Mr. A. Arun Kumar, South Tamilnadu Promotion Manager, KOKUYO CAMLIN LTD, organized by the Women’s Forum of The American College, Madurai in collaboration with KOKUYO Camlin Ltd. on 25, September 2023.**
- 24. ORGANIZING COMMITTEE MEMBER. Awareness program on “Hand Hygiene & Organ Donation” under Ayushman Bhav Campaign and “Anemia” under Ayurswasthya Yojana Scheme. Doctors-Madurai Rajaji Govt.Hospital, organized by the Women’s Forum of The American College, Madurai on 27, September 2023.**
- 25. ORGANIZING MEMBER, One day talk on “Nurturing Healthy Physique” organized by Gender Studies of American College on 14, October 2023.**
- 26. ORGANIZING SECRETARY - PHOBOS-2019- Intercollegiate UG Physics Meet**

Orientation / Refresher / Other Courses attended:

Name of the course	Academic Staff College University	Duration in Days	From – To (mention date here)
Orientation Programme	UGC- Academic Staff College, Madurai Kamaraj University, Madurai	28	03.03.2015-30.03.2015
Refresher Course in Basic Sciences	UGC – HRDC, Madurai Kamaraj University, Madurai	21	02.11.2016-22.11.2016
NPTEL on-line Swayam Certification Course (AICTE approved FDP course)	Indian Institute of Technology, Roorkee	92	Jan-March 2020
Refresher Course in Physics	UGC-HRDC, Madurai Kamaraj University, Madurai	14	10.11.2021-23.11.2021
Refresher Course in Material Sciences	UGC-MMTTC, Karnatak University, Dharwad	12 working days	11.08.2025-23.08.2025

Name of the FDP	Name of the University	Duration in Days	From – To (mention date here)
Faculty Development Program	AIACHE & Bishop Heber College, Trichy	3	18.05.2023-20.05.2023
Rietveld Refinement of X-Ray Diffraction (RRD)	Centre for Advanced Computational Research, New Delhi, India	7	30.10.2025 -05.11.2025