### The American College, Madurai FACULTY PROFILE (For IQAC)

Name : Dr. D. RACHEL MALINI Date of Joining : 25. 11. 2013

Designation : Assistant Professor : Physics

Phone with Ext. No: Mobile: 9865656729

Email : drachelmalini@yahoo.co.in

rachelmalini@americancollege.edu.in



### 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

### **Specialization in Research:**

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

#### **Research Interests:**

- Electrochromic Thin films
- 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 Till date
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 Till date
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 Terasa 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<sub>2</sub>O<sub>5-x</sub> 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
- 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
- 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

4. "H<sup>+</sup>- 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:**

- 1. "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 62<sup>nd</sup> DAE Solid State Physics Symposium (DAE-SSPS-2017) 1942 (2018) 080021. (Impact factor: 0.40); *Conference proceedings*
- 2. 'Structural and Optical properties of as-deposited and annealed V<sub>2</sub>O<sub>5</sub> 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
- 3. "Comparative study of structural, optical and impedance measurements on V<sub>2</sub>O<sub>5</sub> and V-Ce mixed oxide thin films" D. Rachel Malini and C. Sanjeeviraja- AIP Conference Proceedings, Solid State Physics: Proceedings of the 59<sup>th</sup> DAE Solid State Physics Symposium (DAE-SSPS-2014) 1665 (2015) 080042-3. (Impact factor: 0.40); Conference proceedings
- 4. "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 Ecdo, Publisher: Excel India Publishers, New Delhi (2012) 145-147 (ISBN: 978-93-82062-63-9); *Conference proceedings*
- "Annealing effects on sputtered V<sub>2</sub>O<sub>5</sub> 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
- 6. "பழீயம் சீரியம் கலப்பு ஆக்ஸைடு மென்படலங்களின் மின்நிறமப் பண்புகள் பற்றிய ஓர் ஆய்வு" Collection of abstracts of 12<sup>th</sup> Tamil Nadu Science Congress, Eds. C.Anbazhagan, C.Venkatachalam, A. Muthusami, M. Tamilmaran (2012) 300-301 (ISBN: 139788191050851); Conference proceedings
- 7. "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
- 8. "வானொலி அதிர்வெண் மேக்னட்ரான் தெளித்தல் முறையில் படிவிக்கப் பட்ட சீரியம் பழீயம் கலப்பு ஆக்ஸைடு மென்படலங்கள் பற்றிய ஓர் ஆய்வு" Collection of abstracts of 11<sup>th</sup> Tamil Nadu Science Congress, Eds: N.C. Nagarajan, R. Seerangarajan, P. Shanmugavadivu (2011) 10 (ISBN: 9798177359861); *Conference proceedings*

- 9. "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 56<sup>th</sup> DAE Solid State Physics Symposium (DAE-SSPS-2011) 1447 (2012) 633-634. (Impact factor: 0.40); *Conference proceedings*
- 10. "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
- 11. "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 54<sup>th</sup> DAE Solid State Physics Symposium (DAE-SSPS-2009) (2009) 595-596. (Impact factor: 0.40); *Conference proceedings*

#### **Conference / workshop/ Seminar Presentations:**

Name of the	Name of the Sponsoring	Title of paper	Institution, Place and
Seminar/Conference/Symposi	Agency		Date
a Workshop etc.,			
62nd Department of Atomic	Board of Research in	Studies On Annealed ZnO:V Thin	Bhabha Atomic Research
Energy -Solid State Physics	Nuclear Sciences (BRNS),	Films Deposited By Nebulised Spray	Centre (BARC), Mumbai,
Symposium (DAE-SSPS	Department of Atomic	Pyrolysis Method	26-30.12.2017
2017)	Energy (DAE), Govt. of		
	India		
17 <sup>th</sup> International conference	CSIR- National Physical	Structural and vibrational studies of RF	CSIR-NPL, New Delhi,
on thin films (ICTF17)	Laboratory(NPL), Indian	sputtered V-Ce mixed oxide thin films	on14-17.11.2017
	Vacuum Society(IVS),		
	DST, DRDO, ISRO,		
	BRNS, AVS, BARC,		
	ELSEVIER, Springer etc		
National conference on	TEQIP-II	Structural and Optical properties of as-	NIT, Tiruchirappalli ,27-
Advanced Materials:		deposited and annealed V <sub>2</sub> O <sub>5</sub> thin films	28.02. 2017
Processing and		deposited by non reactive sputtering	
Characterization			
National conference on	TEQIP-II	Structural and Optical Properties of	NIT, Tiruchirappalli ,27-
Advanced Materials:		ZnO layered TiO <sub>2</sub> Photo Electrode for	28.02. 2017
Processing and		Dye Sensitized Solar Cell	
Characterization			

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 <sub>2</sub> O <sub>5</sub> 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 <sup>th</sup> 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 $V_2O_5$ 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 <sup>th</sup> Tamil Nadu Science Congress	Periyar university, Salem in collaboration with Swadeshi Science Movement, Karaikudi	பழீயம் - 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 <sup>th</sup> 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 <sup>th</sup> Tamil Nadu Science Congress	Gandhigram rural university, Gandhigram in collaboration with Swadeshi Science	வானொலி அதிர்வெண் மேக்னட்ரான் தெளித்தல் முறையில் படிவிக்கப் பட்ட சீரியம் - பழீயம் கலப்பு ஆக்ஸைடு மென்படலங்கள் பற்றிய ஓர் ஆய்வு	Gandhigram rural university, Gandhigram, 26-27.06. 2011

	Movement, Karaikudi		
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 <sup>th</sup> 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 <sub>2</sub> O <sub>5</sub> 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 <sub>2</sub> O <sub>5</sub> 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	Name of	Title of paper	Institution, Place and Date
Seminar/Conference/Symposia Workshop etc.,	the Sponsoring Agency		
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 <sup>th</sup> Department of	2009
	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	

#### 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 <sub>2</sub> 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 <sub>2</sub> photoelectrode	M.Sc	
Fabrication of dye-sensitized solar cell	M.Sc	

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

#### List of workshop/ Conferences/ seminars/Quiz participated:

- **1.** 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.
- 2. National webinar entitled "Space-2.0" organized by the Department of Science, St.Joseph's College of Engineering, Chennai on 25th July 2020.
- **3.** 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.
- **4.** National webinar entitled "Advanced Materials and Nanotechnology" organized by the Department of Physics, Islamiah College, Vaniyambadi on 22nd July 2020.

- **5.** 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.
- **6.** FDP on "Advanced Materials for Energy Storage Applications" organized by Department of Physics Velammal Institute of Technology, Chennai during 18-22, July 2020.
- **7.** 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.
- **8.** Virtual workshop on Google Classroom organized by Jayaraj Annapackiam CSI Polytechnic College, Nazareth on 10.07.2020.
- **9.** Webinar on "Smart Materials and Applications" organized by Department of Physics, Kamaraj College, Thoothukudi on 09.07.2020.
- **10.** Four days webinar on "Advanced Functional Materials" organized by Department of Basic Science (Physics), PSG Polytechnic College, Coimbatore during 6-9 July, 2020.
- **11.** 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.
- **12.** 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. <a href="https://forms.gle/Q955qpb4xv9p1aVB9">https://forms.gle/Q955qpb4xv9p1aVB9</a>
- 13. 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.
- **14.** Webinar on "Electrospun 1D-Nanomaterials and their applications in DSSC" organized by Department of Physics, Saveetha Engineering College, Chennai on 23.06.2020.
- **15.** 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.

- **16.** International Webinar on "Recent Trends in Advanced Material Science", organized by Department of Physics, The American College, Madurai on 19.06.2020.
- **17.** 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.
- **18.** 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.
- **19.** 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.
- **20.** International webinar on "Advances in Materials Science" organized by Directorate of Distance Education and Department of Physics, Alagappa University, Karaikudi on 10.06.2020.
- 21. Webinar on "Women at risk blossom" conducted by Ladies club of The American College on 09.06.2020.
- **22.** 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
- **23.** Workshop on "How to Conduct Classes Using Google Meet" organized by Department of Computer Applications, DDGD Vaishnav College, Chennai on 07.06.2020.
- **24.** Webinar on "PVD methods in thin film deposition" organized by Department of Physics, Kalasalingam Academy of Research and Education, Krishnankoil on 06.06.2020.
- **25.** 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.
- **26.** International webinar on Nanoscience-2020 organized by Department of Physics, Christian College, Kattakada, Kerala supported by NANOSMAT, Global, UK during 03-04.06.2020.
- **27.** International webinar on Advanced Materials (IWAM-2020) organized by Department of Physics, LRG Government Arts College (W), Tirupur on 03.06.2020.
- **28.** Webinar on "Graphene based Nanocomposites for Energy Storage Applications" organized by the Department of Physics, V.O.Chidambaram College, Tuticurin on 01.06. 2020.
- **29.** 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.

- **30.** International Webinar on Recent Trends in Applied Sciences organised by the Senthi Research Advocacy Forum, V.H.N.Senthikumara Nadar College, Virudhunagar during 29-30.05.2020.
- **31.** 2nd international workshop on Smart Materials Sensors and Energy Devices (SMSED 2020) organized by Dept of Electronics and Communication engineering, SSN College of Engineering, Kalavakkam, Chennai during 25-30.05.2020.
- **32.** Webinar conducted by Ladies club of The American College on 27.05.2020.
- **33.** Webinar on "Supercapacitors: New Age Energy Storage Devices" conducted by Department of Physics, Ayya Nadar Janaki Ammal College, Sivakasi on 19.05.2020.
- **34.** 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.
- 35. Leadership training by Global Leadership Summit (GLS) held at Hallelujah Tower, Madurai during 08-09.02.2019.
- **36.** 17<sup>th</sup> 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 on13.11.2017 sponsored by DST, DRDO, ISRO, BRNS, AVS, BARC, ELSEVIER, Springer etc.
- **37.** 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.
- **38.** AIACHE Golden Jubilee Grand Finale Celebrations held at The American College, Madurai from 7<sup>th</sup> to 11<sup>th</sup> Oct, 2016.
- **39.** 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.
- **40.** 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.
- **41.** 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.
- **42.** 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 31<sup>st</sup> Jan 2012 sponsored by IRCS.

- **43.** State level seminar on Utilisation and Conservation of Energy conducted by N.M.S.Sermathai Vasan College for women, Madurai on 8<sup>th</sup> Sept 2011 sponsored by TNSCST, Chennai and NCSTC, New Delhi.
- **44.** 'YRCS in the emerging era of ecological disasters' conducted by Youth Red Cross Society, Thiagarajar College, Madurai on 18.2.2010.
- **45.** Homi Bhabha Centenary Celebration organized by The American College, Madurai, Tamil Nadu, India on 30.11.2009.
- **46.** 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.
- **47.** 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.
- **48.** 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.
- **49.** 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.

#### **Orientation Program**

Orientation course conducted by UGC-Academic Staff College, MK University, Madurai from 03.03.2015-30.03.2015

#### **Refresher Course**

Refresher course conducted by UGC-HRDC, MK University, Madurai from 02.11.2016-22.11.2016