### Sujin P Jose

Assistant Professor, Department of Computational Physics School of Physics, Madurai Kamaraj University Madurai – 625021Tamil Nadu Email: sujin.physics@mkuniversity.org/ac.in (off) sujamku@gmail.com (personal) Phone: 9344632141(Off); 7806920005 (Mobile) https://mkuniversity.ac.in/new/school/sp/faculty\_profile.php



## **1. Personal Details**

Date of Birth & Age	
Gender & Marital Status	
Community	
Nationality	
Place of Birth	

: 14.05.1971 & 51 : Female & Married : General : Indian : Taliparamba

# 2. Educational Qualifications

### 2.1. Academic

Degree/ Examination	Name of the Exam	University/ Institute	Year of Passing	Percentage/ Grade	Main Subject
Under	B.Sc Degree	Kerala	April	81.7%	Physics
Graduate		University, Trivandrum	1994		
		India.			
Post Graduate	M.Sc Degree	Kerala	April	66.5 %	Physics
		University,	1996		
		Trivandrum,			
		India.			

#### 2.2. Research

Degree	Name of the	Title of the Thesis	Date of	Date of
	University		Submission	Award
Ph.D	Manonmaniam	Vibrational Spectra,	21.09.2005	June
	Sundaranar	Assignments and Analysis of		2006
	University,	some Biologically Important N-		
	Tamil Nadu,	Heterocyclic Molecules		
	India.			

# 3. Post-Doctoral/ Research Associate / Industrial Experience

Name of the University / Institute /	Period of	Nature of Work
Industry	Work	
Visiting Professor, Alternative		Electrocatalysis- studies of metal
Energy Materials Laboratory,	01.05.2018 to	oxides that was developed in
Arizona State University, USA	31.05.2018	Advanced Materials Laboratory,
		Madurai Kamaraj University
Post-Doctoral Fellowship		
Energy Materials – Dr. Pulickel	29.9.2014 to	Energy Materials - Carbon based
Ajayan Research Group) at Materials	27.9.2015	nanostructured materials and their
Science and Nano Engineering		composites for energy storage
Department, Rice University, Texas		application
77005, USA		

# 4. Professional Experience

No	Name of the University /	Position Held	From	To (Date)
	Institution		(Date)	
1.	Assistant Professor	Assistant Professor	18.10.2010	Till date
	School of Physics,			
	Madurai Kamaraj			
	University,			
	Tamil Nadu- 625010,			
	India.			
2.	Assistant Professor	Assistant Professor	07.07.2006	17.10.2010
	& Head	& Head		
	Department of	Department of		
	Physics.	Physics.		
	Vickram College of			
	Engineering,			
	Madurai,			
	Tamil Nadu.			

# 5. Teaching

No	Year	Semester	Course	Course Title (PG)	Hours
			Code		per Week
1.			PHY2215E	Computational Physics	5 hours
2.	2022-23	Ι	PHY2214C	Practical 1- Lab 1	8 hours
3.	2021-22	II	PHY2125E	Experimental Design	5 hours
4.			PHY2124C	Practical I1I	8 hours
5.	-		MPHY11C	Research Methodology	3 hours
6.	2021-22	Ι	PHY2115E	Computational Physics	5 hours
7.			PHY2114C	Practical I	8 hours
8.			PHY21B1S	SSS-Basic Physics	3 hours

9.		II	PHY2025E	Experimental Design	5 hours
10.	2020-21		PHY2024C	Practical I1	6 hours
11.			PHY2015E	Computational Physics	5 hours
12.		Ι	PHY2014C	Practical 1- Lab 1	8 hours
13.		II	PHY1925E	Experimental Design	5 hours
14.	2019-20		PHY1924C	Practical I1	6 hours
15.	_017 _0		PHY1935E	Laser Physics	3 hours
16.			PHY1915E	Computational Physics	5 hours
17.		Ι	PHY1914C	Practical 1 Lab 1	8 hours
18.	2018-19	Ι	PHY1815E	Computational Physics	5 hours
19.		IV	PHY1845E	Nanophysics	5 hours

## 6. Design/Development of New Curricula and Courses

No	Description	Organization for which it was Developed	Level (PG/UG)
1	Board of studies member – University Nominee in the Board of Studies Physics	Nadar Mahajana Sangam SVN College, Madurai	PG
2	Board of studies member	Annai Fathima College of Arts and Science	UG
3	Board of studies member	Sri Kaliswari College, Sivakasi.	UG

## 7.3. Development of other ICT Mediated Teaching-Learning Pedagogy

No	Description	Organization for which it was Developed	Level (PG/UG)
1	Computational Physics		
2	C++ programming- Part I		
3	Experimental Design		PG
4	C++ programming- Part II	Madunai Kamanai	
5	Research Methodology	– Madurai Kamaraj – University	
6	SSS-Basic Physics	Oniversity	
7	Experimental Design		
8	Laser Physics		
9	Nanophysics		

# 8. Research Specialization / Field of Research

- Quantum chemical investigate on of polyatomic molecules
- Nanostructured materials for energy conversion and storage applications
- Nanocomposites for health care and environmental remediation

### 9. Research Publications

Туре	International	National
Papers Published in UGC-CARE Listed Journals	81	03
Books Published	01	05
Contributions to Book Chapters	09	01
Editor of Conference/Seminar Proceedings	01	-
Papers Published in Conference/Seminar Proceedings	09	-
Papers Presented in Conferences/Seminars	37	06
Conference/Seminar/Workshop Attended	06	20

#### **10. Citation Metrics**

Total Citations (Scopus/Web of Science)	2025
h-Index (Scopus/Web of Science)	23
i10 Index (Scopus/Web of Science)	45

## **11. Details of Patents**

Nirosha, B. Vairam, S. Sujin Jose, P. Prasankumar, T. Muthammed Junais, Anitha Pulikkathunayil, J. (2019). Elaeocarpus Tectorius derived phosphorus-doped carbon material as an electrode for asymmetric supercapacitor (Appl. No. 201941044047 A). U.S. Patent and Trademark Office. <u>https://rb.gy/ik0fb0</u>

## 12. Research Guidance/Supervision

Degree / Programme	Completed	Submitted	Ongoing
PDF (Full-time)	0	-	02
Ph.D (Full-time)	07	-	03
PhD (Part-time)	02	-	-
M.Phil Research Project (Full-time)	18	-	-
M.Phil Research Project (Part-time)	02	-	-
M.Sc Projects/Dissertation	24	-	-
M.Sc Internships/Summer or Winter Projects	04	-	-

## **13. Funded Research Projects**

#### 13.1. Ongoing

No	Title of the Project	Funding	Period /	<b>Total Grants</b>
		Agency	Duration	Sanctioned (Rs)
1.	Graphene/ MXene based biosupercapacitors as energy storage units for virtual health care monitoring	SERB- ASEAN	2022- 2024	38,26,368
2.	Spatially distributed Lithium	UGC DSK-	2021-2024	19,62,720

in N	MC electrodes for high	PDF	
ener	gy density storage		
devi	ces.		

## 13.2 Completed

No	Title of the Project	Funding Agency	Duration and Month &Year of Completion	Total Grants Received (Rs)	No of Papers out of Project
1.	Innovative Supercapacitors for Energy Storage Solutions - From Materials Modeling to Device Fabrication	DST- MES	2018- 2021	52,72,560	08
2.	MXene Nanocomposites for Solid State Supercapacitors, Hybridcapacitors and Batteries	DST- DAAD (Indo- German PPP)	2018- 2021	7,25,000	04
3.	DevelopmentofUnitizedMEAsandFuelcellsystemintegration(1KW)forStationaryandTransportationApplications	SPARC- MHRD	2019- 2021	91,27,700	03
4.	Flexible 2D and 3D nanocomposite electrodes of MXenes for Super capacitors and Batteries	DST-SERB (OVDF programme)	2019- 2020	19,36,884	06
5.	Investigation of hybrid metal oxide/multi metal oxidenanomaterials for supercapacitor application	UGC-MRP	2014- 2018	11,60,800	11
6.	Investigations on the Bio- mineralization of nano hydroxyapatite intercalated bio- polymeric systems	DST-WOS scheme	2014- 2017	21,29,323	08

## 14. Reviewer in Journals

Name of the Journal	Publisher	No of Papers Reviewed
Materials research bulletin	Elsevier	2
Journal of Alloys and Compounds	Elsevier	3
Applied Surface Science	Elsevier	1
Fuel	Elsevier	1
Journal of Nanostructure in Chemistry	Elsevier	1
Journal of Molecular Biology	Elsevier	1
Materials today proceedings	Elsevier	3
Ecotoxicology and Environmental safely	Academic Press Inc	
ACS Omega	ACS	3
Journal of Molecular structure	Elsevier	8
Journal of Physics and Chemistry of solids	Elsevier	3
International journal of Biological Macromolecules	Elsevier	2
Journal of Electroanalytical Chemistry	Elsevier	2
Bulletin Of Materials Science	Indian Academy of Sciences and Springer	3
Journal of Indian Chemical Society	Elsevier	1
Polymers	Elsevier	4
Arabian journal of Chemistry	Elsevier	2
Colloids and Surfaces A: Physicochemical and Engineering Aspects	Elsevier	2
Energy Strategy Reviews	Elsevier	2
Journal of Materials Science	Springer	3
Industrial & Engineering Chemistry Research	American Chemical Society	2
Materials Chemistry and Physics	Elsevier	3
Functional Composites and structure	IOP publishing ltd	2
Electrochemica Acta	Elsevier	3
Materials Letters	Elsevier	8
Chemistry Select	Wiley- VCH	3
Journal of Materials Science and Engineering A& B	Elsevier	2
Heliyon	Elsevier	3
Composites Part B	Elsevier	3
NANO	World Scientific	2
Chemical Engineering Journal	American Chemical Society	2
Toxicology Research	Oxford University Press	4

## **15. Research Collaborations**

Name of the Collaborator	Institute	Collaboration Details			
Dr. Pulickel M. Ajayan	Rice University, USA	Overseas project	collaborator DST-MES,		the VDF

		(Overseas Visiting Doctoral Fellowship) and Research Publications.
Dr. A. M. Kannan	Arizona State University, USA	AEML Lab facility is utilised to study electrocatalysis, Scheme for Promotion of Academic and Research Collaboration (SPARC) and Research Publications.
Dr. Scott Higgins	Professor, University of Hawaii	Research Collaboration, Scheme for Promotion of Academic and Research Collaboration (SPARC).
Dr. Smagul Karazhanov	Senior Scientist, Institute of Energy technology, Norway	Overseas collaborator for the project DST-MES. Research Interactions/Publications.
Dr. Mukundan Thelakkat	University of Bayreuth, Germany	In kind- Expertise on solid state battery/ Supercapacitor, Indo-German Project (DST- DAAD).
Dr. Nicolas Alonso-Vante	Universite de Poitiers, France	In kind- Expertise on fuel cell, Material characterizations, Research Interactions.
Dr. Giuseppe Chirico	University of Milano, Italy	In kind - Advanced biophotonics technique towards bio imaging, Research Interactions.
Dr. M. M Shaijumon	Indian Institute of Science Education and Research, Thiruvananthapuram, India	National collaborator for the project DST-MES, Research Interactions.
Dr. C. Sekar	Alagappa University, Karaikudi	Research discussion and publication
Dr. Ilangovan	University of Madras, Chennai	Research discussion, Publications.
Dr. Sreekuttan M. U.	CSIR-CECRI, Chennai	Indo-French project submitted with Prof. Nicolas Alanso Vante, Research Interactions.
Dr. M. Sathish	CSIR-CECRI, Karaikudi	M.Sc students' Summer projects, Student Mobility and Research interactions.
Mr. Sandeep Dixit	Head, Adani Power Training & Research Institute (APTRI), Adani Power, Ahmedabad	Applied for Indo-Norway project, In kind: Expertise in solar module & Supercapacitors.

# 16. Countries Visited

Name of the Country	Period	Purpose
		L &

Bayreuth, Germany	01.11.2019- 21.11.2019	DST-DAAD
University of Bayreuth		Indian PI
Arizona, USA	01.05.2018- 30.05.2018	Visiting Professor
Arizona State University		
USA, NY, Long Island	29.06.2015-03.07.2015	Conference
Stony Brook University		
USA, Texas	27.09.2014-27.09.2015	Indo-US Raman Fellow
Rice University		
Italy, Trieste.	14.10.2013-18.10.2013	Conference
International Centre for Theoretical		
Physics (ICTP)		
Malaysia	02.12.2005-05.12.2005	Conference
University of Putra		

# 17. Honours / Awards / Recognitions

Name of the Honours / Awards / Recognition	Awarding Agency	International / National / State / Institute Level
Scientific Expert Committee ( <b>Membership in Professional</b> <b>and statutory bodies</b> ) Member, DST-New Delhi for technical evaluation of ASEAN-India R&D proposals in the area of MaterialsScience and Nanotechnology (2021-2023)	DST, New Delhi	National
International Distinguished Researcher in Energy Storage - 2020 for excellence in Research (affiliated by World Research Council)	RULA Awards	International
Guest Scientist – University of Bayreuth, Germany 2019- 2021 Visiting Fellow – 2018-19, New Chemistry Unit, Jawaharlal Nehru for Advanced Scientific Research, Bangalore, India 2019	DST-DAAD JNCASR, Bangalore	International National
Expert Committee Member: Evaluation of BRICS proposals in New and Renewable Energy-2019	DST, New Delhi	National
Scientific Expert Committee (SEC) Member, DST-New Delhi for technical evaluation of ASEAN-India R&D proposals in the area of Physical Sciences 2019- 2021	DST, New Delhi	National
Visiting Professor – Alternative Energy Materials Laboratory, Arizona State University, USA (May 2018).	AEML, Arizona	International
Expert Committee Member: Evaluation of BRICS proposals in New and Renewable Energy-2018	DST, New Delhi	National
Special Invitee: India Action Plan on Mission Innovation Challenge – Clean Energy Materials-First MI-India Workshop on "Clean Energy Materials Innovation Challenge, DST, India, 2018	TMD-DST New Delhi	National
Expert Committee Member: Indo-EU and IBSA Energy Project Terminal Review Meet at DST, Technology Bhavan, New Delhi, 2016.	DST, New Delhi	National
Raman Post-Doctoral Fellowship (Energy Materials) – Dr. Pulickel Ajayan's Research Group at Materials Science and NanoEngineering Department, Rice University, Texas 77005,	UGC-New Delhi	International

USA, 2014.		
Invited to International Centre for Theoretical Physics (ICTP) Trieste, Italy, Second Conference on Nanotechnology for Biological and Biomedical Applications, NANO BIO MED 2013	ICTP-Trieste	International
Foreign Travel Grant- Paper presentation in the Second Conference on Nanotechnology for Biological and Biomedical Applications NANO BIOMED - 2013.	CSIR, Delhi	National
Online News in SpectroscopyNow.com – Special appreciation	UK	International
from London Chemist DAVID BRADLEY on one of the		
papers published in Spectrochimica Acta.		
http://www.spectroscopynow.com/details/ezine/sepspec13030		
ezine/Testing-the-subs.html?tzcheck=1		

# 18. Conferences / Seminars / Workshops Organized

Leve l	Conference Title	Date(s)	Place	Role Played	Funding
1	Indo – Norwegian International online conference on Functional mAterialsFor energy, environment And biOmedical applicatioNs" (FARAON - 2022)	2-4 <sup>th</sup> February 2022	Norway- India	Convenor	IFE, University of oslo , MKU
2	Assisted and chaired a session in a winter school "Cool boat - International online school on "design, fabrication and applications of solar energy conversion devices"	1-3 <sup>rd</sup> December 2021	Norway- India	Coordinat or	
3	Arranged a talk by "Dr. Mukundan Thelakkat, Germany	12- 01.2021	MKU	Organiser	University of Bayreuth, Germany
4	Arranged a talk by Dr. Mukundan Thelakkat, Germany	16.12.202 1	MKU	Organiser	University of Bayreuth, Germany
5	Arranged a talk for the benefit of the students by Dr. D. Indumathi on, How the Sun shines-shedding light on Neutrinos and India based Neutrino Observatory.	19 <sup>th</sup> June 2018	Institute of Mathematica l Sciences, Chennai	Organizer	MKU
7	Organized First International Interdisciplinary conference on Advanced Functional Materials for Energy, Environment and Biomedical		Norway	Organizer	DST, CSIR, IFE, Energy Institute

	Applications, AFMEEB-2017 in collaboration with Energy Institute (IFE), Norway at Madurai Kamaraj University.				(IFE), Norway, Madurai Kamaraj
0	TT 1 0.1	acthar			University
8	Two weeks course on Solar	29 <sup>th</sup> May	Madurai	Cordinato	MHRD
	cells: Materials and modelling	to 10 <sup>th</sup>	Kamaraj	r	
	•	June 2017	university		
9	Organizing Secretary Physics	15 <sup>th</sup> March	Madurai	Convenor	Madurai
	& Beyond - Madurai Kamaraj	2017	Kamaraj		Kamaraj
	university sponsored one day		university		University
	awareness program in Physics.				, Madurai
10	Organized a talk of Guest	12.06.201	Xhejiang	Co-	Madurai
	Scientist, for the benefit of	6	University,	ordinator	Kamaraj
	students on Transmission		China.	Organizer	University
	Electron Microscopy and its			_	, Madurai
	Application.				

# **19. Invited Lectures / Resource Person**

No	Institute/ Organizer	Name of the Conference / Seminar / Workshop	International / National / State	Date(s)
			/ Institute Level	
1.	ASC, MKU	Refresher course in Physics	National	20-
				11.2021
2.	Holycross	Application of Nanotechnology in the	National	15.10.20
	College	energy sector		21
3.	SA	Resource person, Seminar on Current Status	Institute Level	6 <sup>th</sup>
	Engineering	of Energy materials and fuel cells for		March
	College	commercial exploitation		2020
4.	University	Guest Talk at University of Bayreuth,	International	13 <sup>th</sup>
	of Bayreuth,	Germany on		Novemb
	Germany	DST-DAAD 01.11.2019-20.11.2019		er 2019
5.	Special	Physical Science Technical Review of the	National	5 <sup>th</sup> Nov
	invitee,	collaborative R&D proposals under		2018
	ASEAN -	ASEAN-India collaborative program		
	India			
	Science,			
	Technology			
	&			
	Innovation			
	Cooperation			41-
6.	Dept of	Resource person FDP Nanomaterials for	National	26 <sup>th</sup> Oct
	Physics &	Energy, environment and biomedical		2018

	Chemistry, Shri Sakthi Kailash Women's College, Salem	application.		
7.	Veltech University, Chennai	Invited talk on Materials for energy storage - supercapacitors, batteries and Fuel cells.	National	22.10.20 18
8.	Nano gathering, Madras University	Chennai Nano gathering National Conference on Nanomaterials and Nano biotechnology (poster presentation)	National	7-8 <sup>th</sup> Feb 2017
9.	DST, India	Special Invitee: India Action Plan on Mission Innovation Challenge- Clean Energy Materials- First MI- India Workshop on "Clean Energy Materials Innovation Challenge, DST, India-2017 (Poster).	National	17 <sup>th</sup> August 2017
10.	Annai Fathima College, Tirumangal am	Motivational talk "Nanomaterials for eco and Healthcare" for the school students.	National	23.08.20 16
11.	St. John's College, Anchal, Kerala	Resource Person, UGC sponsored National seminar on Perceptives in Raman Spectroscopy,	National	15-16 <sup>th</sup> October 2015

# 21. Professional Development Programs / Faculty Development Programs Attended

Name of the programs	Place	Duration	Sponsoring agency
Orientation Course	Academic Staff College, Madurai Kamaraj University Madurai – 625 021.	05.11.13 to 02.12.13	UGC-ASC
Refresher Course	Academic Staff College, University of Kerala, Thiruvananthapuram–695 581.	25.11.15 to 15.12.15	UGC-ASC
Refresher Course	Academic Staff College, Madurai Kamaraj University, Madurai – 625 021.	09.03.18 to 29.03.18	UGC-ASC
Refresher Course ICT in Education	Academic Staff College, Madurai Kamaraj University, Madurai – 625 021.	08.12.21 to 21.12.21	UGC-ASC
GIAN two weeks course "Solar Cells, Materials, and Modelling"	Madurai Kamaraj University, Madurai	29.05.17 to 10.06.17	MHRD

Summer School on Biomedical Electronics	NITTTR, Tharamani	04.08.08 to 09.08.08	MHRD/AICTE
Certificate course on Mobile Communication	Vickram College of Engineering, Madurai	30.11.09 to 06.12.09	CUIC-AU/ BSNL
FDPonNanomaterialsforEnergyharvestingandBiomedicalApplications	Godavari Institute of Engineering and Technology, Andhra Pradesh, India	18.05.20 to 22.05.20	NPBL-GIET (Online-mode)
Webinar on "An effective Research paper writing skills"	Bhagwan Mahavir University, Surat, Gujarat	13.04.20 to 16.04.20	Online mode
FDP on Advanced Computational and Experimental Research in Physics	SRM Institute of Science and Technology, Chennai	13.09.21 to 25.09.2021	Online mode

# 22. Administrative Experiences

Role Played	Responsibilities	Period (from to)	
Head-in-Charge Physics Annai Fathima College of Arts and Science, Madurai, Tamil Nadu, India	Both Academic, administrative and research	1 year & 11 months 24.07.2004 to 06.07.2006	
Head of the Department, Physics	Both Academic, administrative and research	4 years & 3 months 07.07.2006 to 17.10.2010	
Vickram College of Engineering, Tamil Nadu, India			

23. Membership in Academic Bodies (BoS, DC, External Examiner, etc.)

Name of the University / Institute	Type of Membership	<b>Duration / Period</b>
/ College		
BOS		
BOS		
DC member		

# 24. Membership in Recognised Professional Bodies

Mana af the Darferster al Dada		T f Manahamahin
Name of the Professional Body	International / National	Type of Membership

American Chemical Society	International	Life time member	
Society of Materials Chemistry	National	Life time member	
Energy Science Society of India	National	Life time member	
Institute of Physics, UK	International	Life time member	
Indian Spectro physics	National	Life time member	
Association			
Indian Laser Association	National	Life time member	
Photonics Society of India	National	Life time member	
The International Nano Science	International	Life time member	
Community			

### 25. Languages Known

Languages	Read	Write	Speak
English	Yes	Yes	Yes
Tamil	Yes	No	Yes
Malayalam	Yes	Yes	Yes

#### **26. Competence in Computer Applications** PGDCA - Diploma in Computer Application

Programming in C++

### 27. Involvement in Extension Activities other than Academic Works

- Preparatory & Questionnaire analysis, Report preparation works, Field works, Swacha Pakhwada, Village adoption Sathangudi Village, 12th and 13th September 2017.
- Complimentary appointment in the Department of Materials Science and Nano Engineering, Rice University, USA (30 Sept to 30<sup>th</sup> November 2015).
- Editorial Board Member, Asian Material Science Letters, Dehradun, India. (2015-2016).
- Project (Team) Member: Advanced Energy Consortium (AEC) and Schlumberger, USA (2014-2015).
- Brochure preparation, University Hostels, Hospital and Science Park as per VC's instruction (2014- 2015).

#### 28. Any Other Relevant Information

- Student Counselling for the emotional and psychological well-being. (both personal and career) by e-mail, WhatsApp and face to face.
- Served as member in PG Board of Examinations.
- Summer Fellowship: 3-months dissertation Student project work project at CSIR-CECRI in 2019 and 2020

- Student has been sent to CSIR-CECRI to do his project under the institute guidance of the Senior Scientist Dr. M. Sathish (K. Vinothkumar) 6.5.2019 to 6.8.2019.
- TNSCST Student project awards 2013, 2019, 2020 and 2022 by my student 2019
- Two students are awarded Aspire Scholarship of Kerala Government under my guide ship (Ms. Sona K V & Mary Angel) 14.03.2019.
- Internship offered to Gemini Jose, Scholar, Christ University, Bangalore.
- Internship offered to Anna University student on "Basic methodology towards probing scientific research activities the research overview.
- Student has been sent to ARIES, Nainital for summer training program (2019 & 2022) to do his project under the institute guidance of the Senior Scientist Dr. Snehalatha.

Name of the course	Place	Duration	Sponsoring agency
GIAN two weeks course	Madurai Kamaraj University, Madurai	29.05.17 to 10.06.17	MHRD
Summer School	NITTTR, Tharamani	04.08.08 to 09.08.08	MHRD/AICTE
Certificate course on Mobile Communication	Vickram College of Engineering, Madurai	30.11.09 to 06.12.09	CUIC-AU/ BSNL

Name of the course	Place	Duration	Sponsoring agency
Orientation Course	Academic Staff College, Madurai Kamaraj University Madurai – 625 021.	05.11.13 to 02.12.13	UGC-ASC
Refresher Course	Academic Staff College, University of Kerala, Kariavattom campus, Thiruvananthapuram –695 581.	25.11.15 to 15.12.15	UGC-ASC
Refresher Course	Academic Staff College, Madurai Kamaraj University, Madurai – 625 021.	09.03.18 to 29.03.18	UGC-ASC
Refresher Course	Two Weeks Refresher course on ICT in education at HRDC, MKU, Madurai	08.12.2021 to 21.12.2021	HRDC-MKU

## **Details of Publications**

### 1. Books Published

- 1. Punitha A, Sujin P. Jose, (October 2013), **Studies on Phonon spectra of high Temperature Superconductors**, LAP Lambert Academic, Latvia, European Union.
- 2. S. Mohan, Sujin P. Jose, V. Arjunan, M. Kanchana Mala, (2013). **Principles of Materials** Science (PP 576) 2<sup>nd</sup> edition, India, MJP Publishers, 978- 81- 8094-167-2.
- 3. S. Mohan, Sujin P. Jose, V. Arjunan, M. Kanchana Mala, (2016). **Principles of Materials Science** (PP 698) 2<sup>nd</sup> edition, India, MJP Publishers, 978-81-8094-301-0.
- 4. S. Mohan, V. Arjunan, Sujin P. Jose, (2014). Fiber Optics and Optoelectronic **Devices**, India, MJP Publishers, 978- 81- 8094- 202- 0.
- 5. S. Mohan, Sujin P. Jose, V. Arjunan, (2018). **Principles of Materials Science** (PP 1064) 2<sup>nd</sup> edition, India, MJP Publishers, 978- 81- 8094- 407- 9.
- 6. S. Mohan, V. Arjunan, Sujin P. Jose, (June 2019). Dental Photonics, India, MJP Publishers, 978-81-8094-345-4.

### **3.** Contribution to Book Chapters

- V Raja, J Vigneshwaran, Kenan Song, A M Kannan, and Sujin P Jose "3D-Printed MXene Composites for Batteries" - D Printing: Fundamentals to Emerging ApplicationsTaylor and Francis (2022)
- J Vigneshwaran, Alexander Krimalowski, AM Kannan, Mukundan Thelakkat, Sujin P Jose " MXenes for solid-state asymmetric supercapacitors"- 2D Materials for Energy Storage and Conversion, Institute of Physics (IOP). https://ioppublishing.org/Institute of Physics (2021), 7-1
- 3. "Pseudocapacitors", Supercapacitors for the Next Generation, Intech Open, London, 2021.T Prasankumar, J Jose, S Jose, SP Balakrishnan, 10.5772/intechopen.98600.
- "Biomass-Derived Carbons and Their Energy Applications", Thibeorchews Prasankumar, Sujin Jose & Meiyazhagan Ashokkumar, Advances in Science, Technology & Innovation, 2021, https://link.springer.com/chapter/10.1007/978-3-030-67884-5\_10
- 5. "Advances in Green Synthesis, Advances in Science, Technology and Innovation" (2021). Biomass-Derived Carbonsand Their energy Applications. Springer.
- 6. "Energy Materials for Supercapacitors, Fuel Cells, Li-Ion batteries, Hydrogen Storage and Solar Cells". In the book, Principles of MaterialsScience, MJP Publishers, India, 2019, PP741-790. 978-81-8094-167-2
- 7. "Progress on the Functionalization of Carbon Nanostructures for Fuel Cell Electrocatalysts". In the book, Francisco Javier Rodriguez Varela, Teko W. Nappom Advanced Electrocatalysts for Low-Temperature Fuel Cells, Springer, 2018. 978-3-319-99019-4.

- "Eco-Friendly Polymer Layered Silicate Nanocomposite Prepa ration, Chemistry, Properties, and Applications". In the Book, Vijay Kumar Thakur, Manju Kumar Thakur Eco-friendly Polymer Nanocomposites: Chemistry and Applications. Springer, 2015. 978-81-322-2473-0.
- "Synthesis of Embedded Gold and Ag Au and Cu Au Alloy Nanoclusters in Soda-Lime Glass by Ion-Exchange: A Novel Route". In the Book, Zacharie Bartul, Jerome Trenor Advances in Nanotechnology. Nova Science Publishers, USA, 2011. 978-1-61942-341-1.

## 4. Editor of Conference/Seminar Proceedings

1. Guest Editor: Guest editor, Indo-Norwegian International Online Conference on "Functional mAterials for eneRgy, environment And biOmedical applicatioNs" FARAON 2022, 02 - 04, February 2022.

### **5. Research Publications**

## **5.1. UGC-CARE Listed Journals**

- Investigation on Y2NiMnO6 nanostructures for energy storage applications, T Sharmili, A Joana Preethi, J Vigneshwaran, SP Jose, M Ragam, Applied Physics A 2023, 129 (1), 1-13 Impact Factor: 2.983 <u>https://doi.org/10.1007/s00339-022-06322-1</u>
- Biomass derived hierarchical porous carbon for supercapacitor application and dilute stream CO2 capture, T Prasankumar, D Salpekar, S Bhattacharyya, K Manoharan, RM Yadav, Sujin P Jose\*, Pulikal M Ajayan\*, Soumyabrata Roy\*, *Carbon*, **2022**, 199, 249-257.

Impact Factor: 11.31 https://doi.org/10.1016/j.carbon.2022.07.057r

- Flexible quasi-solid-state supercapacitors based on Ti<sub>3</sub>C<sub>2</sub>-Polypyrrole nanocomposite, J Vigneshwaran, J Jose, S Thomas, A Gagliardi, M Thelakkat, SP Jose, *Electrochimica Acta*, **2022**, 429, 141051. Impact Factor: 6.901 https://doi.org/10.1016/j.electacta.2022.141051
- Robust hierarchical three dimensional nickel cobalt tungstate-MXene nanocomposite for high performance symmetric coin cell supercapacitors, Vigneshwaran, RL Narayan, D Ghosh, V Chakravarthy, SP Jose, Journal of Energy Storage 2022, 56, 106102 Impact Factor: 8.907
- Bio-inspired green synthesis of sunlight driven AuNPs/RGO nanocomposites with enhanced photocatalytic activity and their promising electrochemical performance, R Prasannadevi, J Vigneshwaran, S Suthakaran, SP Jose, S. Dhanapandiyan, N. Krishna Kumar\*, *Current Applied Physics*, 2022, 43, 15-28. Impact Factor: 2.48 10.1016/j.cap.2022.07.009

- Water Dynamics in Competitive Solvation Assisted Loading of Colloidal Curcumin Nanoparticles onto Mesoporous Silica Nanostructures (Part. Part. Syst. Charact. 8/2022), AN Ananth\*, V Nagarajan, SS Kumar, P Sasikumar, G Chirico, L D'Alfonso, Sujin P Jose\*, *Particle & Particle Systems Characterization*, **2022**, 39 (8), 2270018. Impact Factor: 3.467 https://doi.org/10.1002/ppsc.202200062
- Redgum-derived high surface area porous carbon for electric double layer capacitors, J Vigneshwaran, J Jose, T Prasankumar, A Saranraj, SP Jose\*, *Results in Engineering*, 2022, 15, 100567. Impact Factor: 4.06 http://dx.doi.org/10.1016/j.rineng.2022.100567
- Nigella sativa flavonoids surface coated gold NPs (Au-NPs) enhancing antioxidant and anti-diabetic activity, S Veeramani\*, AP Narayanan, K Yuvaraj, R Sivaramakrishnan, Rajangam Ilangovan\*, *Process Biochemistry*, **2022**, 114, 193-202. Impact Factor: 3.757 https://doi.org/10.1016/j.procbio.2021.01.004
- Dimensionally engineered ternary nanocomposite of reduced graphene oxide/multiwalled carbon nanotubes/zirconium oxide for supercapacitors, J Jose, J Vigneshwaran, A Baby, R Viswanathan, SP Jose\*, PB Sreeja\*, *Journal of Alloys and Compounds*, 2022, 896, 163067. Impact Factor: 5.316 https://doi.org/10.1016/j.jallcom.2021.163067
- 10. DFT study of NH3 adsorption on 2D monolayer MXenes (M2C, M= Cr, Fe) via oxygen functionalization: Suitable materials for gas sensors, AA Banu, S Sinthika, S Premkumar, J Vigneshwaran, SZ Karazhanov\*, Sujin P Jose\*, *FlatChem*, 2022, 31, 100329.
  Impact Factor: 5.227 https://doi.org/10.1016/j.flatc.2021.100329
- Emerging ternary nanocomposite of rGO draped palladium oxide/polypyrrole for high performance supercapacitors, Jemini Jose, Sujin P. Jose\*, T. Prasankumar, Sadasivan Shaji, Saju Pillai, Sreeja P.B\*, *Journal of Alloys and Compounds*, **2021**, 855, 157481. Impact Factor: 5.316 10.1016/j.jallcom.2020.157481
- Immobilization of cellulase enzymes on nano and micro-materials for breakdown of cellulose for biofuel production-a narrative review K. Narayanan Rajnish, Melvin S. Samuel, Ashwini John J, Saptashwa Datta, Narendhar Chandrasekar, Ramachandran Balaji, Sujin Jose, Ethiraj Selvarajan\*, *International Journal of Biological Macromolecules*, 2021, 182, 1793-1802. Impact Factor: 8.025 10.1016/j.ijbiomac.2021.05.176
- 13. Fe<sub>2</sub>O<sub>3</sub> decorated graphene oxide/polypyrrole matrix for high energy density flexible supercapacitor, J Vigneshwaran, S Abraham, B Muniyandi, T Prasankumar, JT Li, S Jose, Surfaces and Interfaces, **2021**, 27, 101572.

Impact Factor: 1.607 https://doi.org/10.1016/j.surfin.2021.101572

- 14. Microwave Synthesis, Characterization and Magnetic Properties of Fe3O4/Ag Nanocomposite for Functionalization, T Prasankumar, SP Jose, S Sivaprakash, *Synthesis, Properties & Applications*
- Sensitivity enhancement in rGO/Mn3O4 hybrid nanocomposites: A modified glassy carbon electrode for the simultaneous detection of dopamine and uric acid, G Vinodhkumar, SP Jose\*, S Lokeswarareddy, C Sekar, IV Potheher, *Synthetic Metals*, 2021, 280, 116859.
   Impact Factor: 3.266

   10.1016/j.synthmet.2021.116859
- 16. Functional carbons for energy applications, T Prasankumar, S Jose, PM Ajayan, M Ashokkumar\*, *Materials Research Bulletin*, 2021, 142, 111425. Impact Factor: 4.641 10.1016/j.materresbull.2021.111425
- 17. Antimonene nanosheets with enhanced electrochemical performance for energy storage applications, M.Mohamed Ismail, J.Vigneshwaran, S.Arunbalaji, D.Mani, M.Arivanandhan, Sujin P Jose, R.Jayavel\*, *RSC Dalton transactions*, 14<sup>th</sup> September 2020, 49, 13717-13725. Impact Factor: 4.39 https://doi.org/10.1039/D0DT01753A
- Platinum doped iron carbide for the hydrogen evolution reaction: The effects of charge transfer and magnetic moment by first-principles approach, A. Aseema Banu, Smagul Zh Karazhanov, K. Vinoth Kumar, Sujin P. Jose\*, *International Journal of Hydrogen Energy*, 2020.
   Impact Factor: 7.139
   10.1016/j.ijhydene.2020.08.163
- Is the H<sub>2</sub> economy realizable in the foreseeable future? Part III: H<sub>2</sub> usage technologies, applications, and challenges and opportunities, Hassan Nazir, Navaneethan Muthuswamy, Cindrella Louis, Sujin Jose, Jyoti Prakash, Marthe E.Buan, Cristina Flox, Sai Chavan, Xuan Shi, Pertti Kauranen, Tanja Kallio, Gilberto Maia, Kaido Tammeveski, Nikolaos Lymperopoulos, Elena Carcadea, Emre Veziroglu, Alfredo Iranzo\*, Arunachala M. Kannan\*, *International Journal of Hydrogen Energy*, 29<sup>th</sup> July **2020**, 45, 28217-28239, Impact Factor: 7.139 10.1016/j.ijhydene.2020.07.256
- 20. α MnO<sub>2</sub> coated anion intercalated carbon nanowires: A high rate capability electrode material for supercapacitors, Nirosha Bose, Vairam Sundararajan\*, T. Prasankumar, Sujin P. Jose, *Materials Letters*, 1<sup>st</sup> August 2020, 278,128457. Impact Factor: 3.423 10.1016/j.matlet.2020.128457
- Benzoyl hydrazine-anchored graphene oxide as supercapacitor electrodes, Jemini Jose, Sujin jose\*, S. Abinaya, Sadasivan Shaji, P. B. Sreeja\*, *Materials Chemistry and Physics*, 8<sup>th</sup> August **2020**, 256, 123666.

Impact Factor: 4.094 10.1016/j.matchemphys.2020.123666

- 22. Novel lead dioxide intercalated polypyrrole/graphene oxide ternary composite for high throughput supercapacitors, Sibi Abraham, T. PrasanKumar, K. Vinoth Kumar, Smagul Zh Karazhanov, Sujin Jose\*, *Materials Letters*, 5<sup>th</sup> May **2020**, 273, 127943. Impact Factor: 3.423 10.1016/j.matlet.2020.127943
- 23. Is the H<sub>2</sub> economy realizable in the foreseeable future? Part II: H2 storage, transportation, and distribution, Hassan Nazir, Navaneethan Muthuswamy, Cindrella Louis, Sujin Jose, Jyoti Prakash, Marthe E.Buan, Cristina Flox, Sai Chavan, Xuan Shi, Pertti Kauranen, Tanja Kallio, Gilberto Maia, Kaido Tammeveski, Nikolaos Lymperopoulos, Elena Carcadea, *International Journal of Hydrogen Energy*, **2020**, 45,Emre Veziroglu, Alfredo Iranzo\*, Arunachala M. Kannan\* Impact Factor: 7.139 https://doi.org/10.1016/j.ijhydene.2020.05.241
- 24. Expeditious and eco-friendly synthesis of spinel LiMn<sub>2</sub>O<sub>4</sub> and its potential for fabrication of supercapacitors, Thibeorchews Prasankumar, J. Vigneshwaran, Muniyandi Bagavathi, Sujin Jose\*, *Journal of Alloys and Compounds*, 3 <sup>rd</sup> April 2020, 834, 155060.
  Impact Factor: 5.316 10.1016/j.jallcom.2020.155060
- 25. Role of Sm<sup>3+</sup> dopant in the formation of La (1-x) Sm<sub>x</sub>CrO<sub>3</sub> solid state nanoperovskites–Correlation of its augmented physical properties, P Sivaprakash, A Nitthin Ananth\*, V Nagarajan, R Parameshwari, S Arumugam, Sujin P Jose, S Esakki Muthu\*, *Materials chemistry and Physics*, 11<sup>th</sup> March **2020**,248, 122922. Impact Factor: 4.094 10.1016/j.matchemphys.2020.122922
- 26. Is the H<sub>2</sub> economy realizable in the foreseeable future? Part I: H<sub>2</sub> production methods, Hassan Nazir, Cindrella Louis, Sujin Jose, Jyoti Prakash, Navaneethan Muthuswamy, Marthe E.M.Buan, Cristina Flox, Sai Chavan, Xuan Shi, Pertti Kauranen, Tanja Kallio, Gilberto Maia, Kaido Tammeveski, Nikolaos Lymperopoulos, Elena Carcadea, Emre Veziroglu, Alfredo Iranzo\*, Arunachala M. Kannan\*, *International Journal of Hydrogen Energy*, 11<sup>th</sup> March, **2020**, 45, 13777-13788. Impact Factor: 7.139 10.1016/j.ijhydene.2020.03.092
- 27. Temperature assisted reorganization of silver nanoparticles in free-standing, flexible chitosan functionalized reduced graphene oxide thick films: A potential SERS probe for folic acid sensing, S. Asha, A. Nimrodh Ananth\*, Sujin P Jose, Michael Anjello Jothi Rajan\*, *Material Science and Engineering: B*, 5<sup>th</sup> November **2019**, 252, 114454. Impact Factor: 7.328 10.1016/j.mseb.2019.114454
- Biosynthesized silver nanoparticles using *Bacillus amyloliquefaciens*; Application for cytotoxicity effect on A549 cell line and photocatalytic degradation of p-nitrophenol, Melvin S Samuel, Sujin Jose, E. Selvarajan, Thangavel Mathimani, Arivalagan

Pugazhendhi\*, *Journal of Photochemistry and Photobiology B*: Biology, 1<sup>st</sup> October **2019**,202, 111642. Impact Factor: 6.252 10.1016/j.jphotobiol.2019.111642

- 29. Photophysical and Electrochemical Studies of Anchored Chromium (III) Complex on ReducedGraphene Oxide via Diazonium Chemistry, Jemini Jose, Athimotlu Raju Rajamani , Anandaram Sreekanth\*, Sujin P Jose , Sebastian C Peter, Sreeja P B\*, *Applied Organometallic Chemistry*, 23 rd May **2019**, 33, e5063. Impact Factor: 4.105 10.1002/aoc.5063
- 30. Electronic structure of cobalt/iron carbide from ab-initio calculations, A.Aseema Banu, Smagul Zh Karazhanov, Sujin P Jose\*, *Materials Research Express*, July 2019,6,076302. Impact Factor: 1.609 10.1088/2053-1591/ab11ba
- 31. Quantum chemical studies and spectroscopic investigations on 2-amino-3- methyl-5-nitropyridine by density functional theory, S. Sivaprakash, S. Prakash, S. Mohan, Sujin P. Jose\*, *Heliyon*, 22<sup>nd</sup> July 2019, 5, e02149. Impact Factor: 2.85 10.1016/j.heliyon. 2019.e02149
- 32. Synthesis and enhanced electrochemical performance of PANI/Fe<sub>3</sub>O<sub>4</sub> nanocomposite as supercapacitor electrode, T. Prasankumar, Biny R. Wiston, C. R. Gautam, Rajangam Ilangovan ,Sujin P. Jose\*, *Journal of Alloys and Compounds*, 8<sup>th</sup> May 2018,757, 466-475. Impact Factor: 5.316 10.1016/j.jallcom.2018.05.108
- 33. Three-dimensional architecture of tin dioxide doped polypyrrole/reduced graphene oxide as potential electrode for flexible supercapacitors, T. Prasankumar, Smagul Karazhanov and Sujin P. Jose\*, *Materials Letters*, 17<sup>th</sup> March 2018, 221, 179-182. Impact Factor: 3.423 10.1016/j.matlet.2018.03.093
- 34. Chandkiram Gautam, Dibyendu Chakravarty, Amarendra Gautam, Chandra Sekhar Tiwary, Cristiano Francisco Woellner, Vijay Kumar Mishra, Naseer Ahmad, Sehmus Ozden, Sujin Jose, Santoshkumar Biradar, Robert Vajtai, Ritu Trivedi\*, Douglas S. Galvao, Pulickel M. Ajayan\*, ACS Omega, 22<sup>nd</sup> May 2018, 3, 6013-6021. Impact Factor: 4.132 https://doi.org/10.1021%2Facsomega.8b00707
- 35. Reduced graphene oxide aerogel networks with soft interfacial template for applications in bone tissue regeneration, S. Asha, A. Nimrodh Ananth\*, Sujin P. Jose, M. A. Jothi Rajan\*, *Applied nano science*, 18<sup>th</sup> May 2018, 8, 395-405. Impact Factor: 3.674 10.1007/s13204-018-0803-z

- 36. Surface colonized silver nano particles over chitosan poly-electrolyte micro-spheres and their multi-functional behavior, B. Prakash, S. Asha, A. Nimrodh Ananth, G. Vanithakumari, G. S. Okram, Sujin P. Jose, M. A. Jothi Rajan\*, *Materials Research Express*, 23<sup>rd</sup> February 2018, 5, 025032. Impact Factor: 1.941 https://iopscience.iop.org/article/10.1088/2053-1591/aaa3c6/meta
- 37. Europium-Doped Hydroxyapatite Nanorods: Influence of Silver Doping, S. Asha, A. Nimrodh Ananth\*, Sujin P. Jose, M. A. Jothi Rajan\*, *International Journal of nanoscience*, 2018, 17, 1760034.
  Impact Factor: 0.677 https://doi.org/10.1142/S0219581X17600341
- 38. 3D structures of Graphene oxide and graphene analogue MoS2 with polypyrrole for supercapacitor electrodes, T. Prasankumar, J. Vigneshwaran, Sibi Abraham, Sujin P. Jose\*, *Materials Letters*, 3 rd December 2018, 238, 121-125. Impact Factor: 3.423 10.1016/j.matlet.2018.12.002
- 39. Flexible and free-standing reduced graphene oxide thick films with PMMA stabilized silver nanoparticles, as a potential probe for cancer thermal therapy, S. Asha, A. Nimrodh Ananth\*, Sujin P. Jose, M. A. Jothi Rajan\*, *Biomedical Physics & Engineering Express*, 29<sup>th</sup> October 2018, 6, 065032. Impact Factor: 1.391 https://iopscience.iop.org/article/10.1088/2057-1976/aae90c/meta
- 40. Synthesis and 3D interconnected nanostructured h-BN-based biocomposites by low-temperature plasma sintering: bone regeneration applications, Chandkiram Gautam\*, Dibyendu Chakravarty, Amarendra Gautam, Chandra Sekhar Tiwary, Cristiano Francisco Woellner, Vijay Kumar Mishra, Naseer Ahmad, Sehmus Ozden, Sujin Jose, Santoshkumar Biradar, Robert Vajtai, Ritu Trivedi, Douglas S. Galvao, and Pulickel M. Ajayan, *ACS omega*, **2018**, 3 (6), 6013-6021. Impact Factor: 4.132 https://doi.org/10.1021/acsomega.8b00707
- 41. Cartilage rim augmented fascia tympanoplasty: a more effective composite graft model than temporalis fascia tympanoplasty, AA Kolethekkat\*, R Al Abri\*, K Al Zaabi, N Al Marhoobi, S Jose, S Pillai\*, J Mathew, *The Journal of Laryngology & Otology*, **2018**, 132 (6), 497-504, Impact Factor: 1.4 10.1017/S0022215118000762
- 42. Synthetic Method Dependent Physicochemical Properties and Electrochemical Performance of Ni-Doped ZnO, Abinaya Chandrasekaran, T. Prasankumar, Sujin P. Jose, K. Anitha, C. Ekstrum, J. M. Pearce, Jayanthinath Mayandi\*, *Chemistry Select*, 29<sup>th</sup> September 2017, 2, 9014-9023. Impact Factor: 2.307 10.1002/slct.201701584

- 43. Molecular structure, Vibrational analysis (IR and Raman) and quantum chemical investigations of 1-aminoisoquinoline, S. Sivaprakash, S. Prakash, S. Mohan, Sujin P. Jose\*, *Journal of Molecular Structure*, 16<sup>th</sup> August 2017, 1149, 835-845. Impact Factor: 3.841 10.1016/j.molstruc.2017.08.060
- 44. Multi-functional Bio-compatibile luminiscent apatite with fatty acid passivated nano silver covers and its theranostics potential, S. Asha, A. Nimrodh Ananth\*, G. Vanitha Kumari, B. Prakash, Sujin P. Jose, M.A Jothi Rajan\*, *Advances in natural Sciences; Nanoscience and Nanotechnology*, **2017**, 8, 035015, Impact Factor: 2.3 https://doi.org/10.1088/2043-6254/aa7717
- 45. Removal of elevated level of chromium in groundwater by the fabricated PANI/Fe3O4 nanocomposites, Aruna Ramachandran, T. Prasankumar, S. Sivaprakash, Biny R. Wiston, Santhosh Biradar, Sujin Jose\*, *Environmental Science and Pollution Research*, 2017, 24, 7490-7498 Impact Factor: 4.2 10.1007/s11356-017-8465-z.
- 46. Microwave assisted synthesis of 3D network of Mn/Zn bimetallic oxide-high performance electrodes for supercapacitors, Thibeorchews Prasankumar, V. S. IrthazaAazem, Prasanth Raghavan, K. Prem Ananth, Santhosh Biradar, Rajangam Ilangovan, Sujin Jose\*, *Journal of Alloys and Compounds*, **2016**, 695, 2835-2843. Impact Factor: 6.3 10.1016/j.jallcom.2016.11.410
- 47. Enhanced supercapacitor performance of 3D architecture tailored using atomically thin rGO-MoS2 2D sheets, Sujin P. Jose, C. S. Tiwary\*, Suppanat Kosolwattana, Prasanth R Krishna\*, Leonardo Machado, Chandkiram Gautam, Prasankumar T, Jarin Joyner, Şehmus Ozden, Pulickel M. Ajayan\*, *RSC Advances*, 2016, 6, 93384-93393, Impact Factor: 4.0 10.1039/c6ra20960b
- 48. Synthesis and enhanced mechanical properties of MgO substituted hydroxyapatite: a bone substitute material, C. R. Gautam\*, S. Kumar, S. Biradar, Sujin Jose, V. K. Mishra, *RSC Advances*, **2016**, 6, 67565-67574, Impact Factor: 4.0 https://doi.org/10.1039/C6RA10839C
- 49. Synthesis and porous h-BN 3D architectures for effective humidity and gas sensors, Chandkiram Gautam\*, Chandra Sekhar Tiwary\*, Leonardo D. Machado, Sujin Jose, Sehmus Ozden, Santoshkumar Biradar, Douglas S. Galvao, Rakesh K. Sonker, B. C. Yadav, Robert Vajtaia, P. M. Ajayan\*, *RSC Advances*, 2016, 6, 87888-87896, Impact Factor: 4.0 10.1039/C6RA18833H

- 50. Plant pathogenic fungus F. solani mediated biosynthesis of nanoceria: antibacterial and antibiofilm activity, K. S. Venkatesh, K. Gopinath, N. S. Palani, A. Arumugam, Sujin P. Jose, S. Asath Bahadur, R. Ilangovan\*, *RSC Advances*, **2016**, 6, 42720-42729 Impact Factor: 4.0 https://doi.org/10.1039/C6RA05003D
- 51. Influence of α-amylase template concentration on systematic entrapment of highly stable and monodispersed colloidal gold nanoparticles, Nitthin Ananth, A. NimrodhAnanth\*, Sujin P. Jose\*, S. Umapathy, T. Mathavan, *AIP Advances*, **2016**, 6, 015005, 1-8, Impact Factor: 1.5 https://doi.org/10.1063/1.4939849
- 52. A novel silica nanotube reinforced ionic incorporated hydroxyl apatite composite coating on polypyrrole coated 316L SS for implant application, K. Prem Ananth\*, Joseph Nathanael, Sujin Jose, Tae Hwan Oh, D. Mangalaraj, *Materials Science and Engineering: C*, **2015**, 59, 1110-1124. Impact Factor: 7.3 10.1016/j.msec.2015.10.045
- 53. A Novel modified sol-gel template Synthesis of high aspect ratio silica nanotubes in the presence of Phosphoric acid, K. Prem Ananth\*, Sujin P. Jose, A. Joseph Nathanael, Tae Hwan Oh, D. Mangalaraj, A. M. Ballamurugan\*, *Journal of Nano Research*, 2015, 35, 27-38. Impact Factor: 8.8 10.4028/www.scientific.net/JNanoR.35.27
- 54. Synthesis of Low-Density, Carbon-Doped, Porous Hexagonal Boron Nitride Solids, Chandkiram Gautam\*, Chandra Sekhar Tiwary\*, Sujin Jose, Gustavo Brunetto, Sehmus Ozden, Soumya Vinod, Prasanth Raghavan, Santoshkumar Biradar, Douglas Soares Galvao, Pulickel M. Ajayan\*, ACS Nano, 2015, 9, 12088–12095. Impact Factor: 18.03 10.1021/acsnano.5b05847
- 55. Bio-Compatible Carbonate Rich Colloidal Nano Hydroxyapatite: Extraction and Investigations, S. Asha, B. Prakash, A. Ananth, Nimrodh, Sujin P. Jose, R. S. Jayasree, M. A. Jothi Rajan\*, *Journal of Green Science Technology*, **2015**, 2, 49-55. Impact Factor: 0.78 https://doi.org/10.1166/jgst.2015.1040
- 56. Biomimetic ion substituted hydroxyapatite coating on surgical grade 316L SS for implant applications, K. Prem Ananth, Sujin P. Jose, A. Joseph Nathanael, Tae Hwan Oh, D. Mangalaraj, A. M. Ballamurugan\*, *Advanced Materials Letters*, 2015,6, 984-989.
  Impact Factor: 0.6 10.5185/amlett.2015.5913
- 57. Controlled electrophoretic deposition of HAp/β-TCP composite coatings on piranha treated 316L SS for enhanced mechanical and biological properties, KP Ananth\*, AJ Nathanael, SP Jose, TH Oh, D Mangalaraj, A.M.Ballamurugan\*, *Applied Surface Science*, **2015**, 353, 189-199.

Impact Factor: 6.7 http://dx.doi.org/10.1016/j.apsusc.2015.06.111

- 58. Structural and chemical analysis of silica-doped β-TCP ceramic coatings on surgical grade 316L SS for possible biomedical application, K Prem Ananth, S Shanmugam, SP Jose, AJ Nathanael, TH Oh, D Mangalaraj, A.M.Ballamurugan\*, *Journal of Asian Ceramic Societies*, **2015**, 3 (3), 317-324. Impact Factor: 3.1 https://doi.org/10.1016/j.apsusc.2015.06.111
- 59. Eco-friendly polymer-layered silicate nanocomposite–preparation, chemistry, properties, and Applications, R Prasanth\*, PS Owuor, R Shankar, J Joyner, S Kosolwattana, SP Jose, Pei Dong, Vijay Kumar Thakur, Jung Hwi Cho, Manjusha Shelke, *Eco-Friendly Polymer Nanocomposites*, **2015**, 1-42. Impact Factor: 3.667 https://doi.org/10.1007/978-81-322-2473-0\_1
- 60. Facile one step synthesis of novel TiO2 nanocoral by sol-gel method using Aloe vera plant extract, K. S. Venkatesh, S. R. Krishnamoorthi, N. S. Palani, V. Thirumal, Sujin P. Jose, F. M. Wang, R. Ilangovan\*, Indian Journal of Physics, 2014, 89,45-452. Impact Factor: 1.9 10.1007/s12648-014-0601-8
- DFT simulation, quantum chemical electronic structure, spectroscopic and structure– activity investigations of 2-benzothiazole acetonitrile, V. Arjunan\*, S. Thillai Govindaraja, Sujin P. Jose, S. Mohan, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 128, **2014**, 22–36. Impact Factor: 4.0 https://doi.org/10.1016/j.saa.2014.02.187
- 62. Phonon spectra of high temperature superconductor LuBa2Cu3O7, Sujin P. Jose\*, V. Arjunan, S. Mohan, *Asian Materials Science Letters*, **2014**,3, 133-141. Impact Factor: 10.3 https://doi.org/10.1504/IJMATEI.2012.044449
- Solanumtrilobatum extract-mediated synthesis of titanium dioxide nanoparticles to control Pediculushumanuscapitis, Hyalommaanatolicumanatolicum and Anopheles subpictus, Govindasamy Rajakumar, Abdul Abdul Rahuman\*, Chidambaram Jayaseelan, Thirunavukkarasu Santhoshkumar, Sampath Marimuthu, Chinnaperumal Kamaraj, Asokan Bagavan, Abdul Abduz Zahir, Arivarasan Vishnu Kirthi, Gandhi Elango, Pooja Arora, Rajan Karthikeyan, Sivan Manikandan, Sujin Jose, *Parasitology Research*, 2013,113, 469- 479. Impact Factor: 2.289 10.1007/s00436-013-3676-9
- 64. Size Controlled Synthesis of Magnetite Nanoparticles Using Microwave Irradiation Method, K. Prem Ananth, Sujin P. Jose\*, K. S. Venkatesh, R. Ilangovan, *Journal of Nano Research*, 2013, 24, 184-193. Impact Factor: 8.8 https://doi.org/10.4028/www.scientific.net/JNanoR.24.184

- 65. Size controlled synthesis of magnetite nanoparticles using microwave irradiation method, K Prem Ananth, SP Jose\*, KS Venkatesh, R Ilangovan, *Journal of Nano Research*, 2013, 24, 184-193. Impact Factor: 8.8 https://doi.org/10.4028/www.scientific.net/JNanoR.24.184
- 66. Survey of energy efficient and contention based MAC protocol in WBAN for medical and consumer supply chain application, Punitha, Sujin P. Jose\*, *International Journal* of Green Computing, **2012**, 3, 51-61. Impact Factor: Nil 10.4018/jgc.2012070104.
- 67. Theoretical studies on phonon spectra of high temperature superconductor YBaCuFeO<SUB align="right">5, Punitha, Sujin P. Jose\*, S. Mohan, International Journal of Materials Engineering Innovation, 2012,3,50–58. Impact Factor: 0.9 https://doi.org/10.1504/IJMATEI.2012.044449
- Phonon Frequency Spectrum HTSC YbBa2Cu3O7, S. Mohan\*, Sujin P. Jose, L. Abiy, Journal of superconductivity and novel magnetism, 2012, 25, 1673–1678. Impact Factor: 1.5 10.1007/s10948-012-1498-0
- 69. Eclipta prostrata leaf aqueous extract mediated synthesis of titanium dioxide nanoparticles, PJS G. Rajakumar, A. Abdul Rahuman\*, B. Priyamvada, V. Gopiesh Khanna, D Kishore Kumar, *Materials Letters*, 2012, 68, 115–117. Impact Factor: 3.4 10.1016/j.matlet.2011.10.038
- 70. Ecliptaprostrata leaf aqueous extract mediated synthesis of titanium dioxide nanoparticles, G. Rajakumar, A. Abdul Rahuman\*, B. Priyamvada, V. Gopiesh Khanna, D. Kishore Kumar, Sujin P. Jose, *Materials Letters*, **2012**,68,115–117. Impact Factor: 1.0 10.1016/J.MATLET.2011.10.038
- 71. Theoretical studies on phonon spectra of high temperature superconductor YBaCuFeO5, Punitha, Sujin P. Jose\*, S. Mohan, *International Journal of Materials Engineering Innovation*, 2011,3, 50-58.
  Impact Factor: 0.17 https://doi.org/10.1504/IJMATEI.2012.044449
- 72. Theoretical Studies on Phonon Spectra of High Temperature Tl-Ba-Ca-Cu-O Superconductors, A Punitha, SP Jose\*, S Mohan, *Journal of Physical Science*, 2011, 22 (2), 33-49.
  Impact Factor: 1.0 https://doi.org/10.1504/IJMATEI.2012.044449

- 73. Vibrational and electronic investigations, thermodynamic parameters, HOMO and LUMO analysis on crotonaldehyde by ab- initio and DFT methods, Jayaprakash, V. Arjunan, Sujin P. Jose, S. Mohan\*, *Spectrochimica Acta Part: A*, **2011**,83, 411–419. Impact Factor: 4.098 https://doi.org/10.1016/j.saa.2011.08.054
- 74. Density functional theory studies on vibrational and electronic spectra of 2-chloro-6-methoxypyridine, V. Arjunan\*, Sujin P. Jose, T. Rani, C. V. Mythili and S. Mohan, *Spectrochimica Acta Part: A*, 2011,78, 1625-1632. Impact Factor: 4.098 https://doi.org/10.1016/j.saa.2011.02.018
- 75. Preparation and characterization of Nd3+ doped sodium leadbismuthate glass, B. Karthikeyan, S. Mohan\*, Sujin P. Jose, *Spectrochimica Acta Part: A*, 2006, 65, 1134–1137.
  Impact Factor: 4.098
  10.1016/j.saa.2006.01.047
- 76. FT-IR and FT-RAMAN investigations of nicotinaldehyde, Sujin P. Jose, S. Mohan\*, Spectrochimica Acta Part: A, 2006, 64, 205–209. Impact Factor: 4.098 https://doi.org/10.1016/j.saa.2005.06.040
- 77. Lattice dynamics and normal coordinate analysis of HTSC Tl2Ba2Cu1O6, S. Mohan, K. Sonamuthu\*, Sujin P. Jose, *Journal of Physical Science*, 2006, 17, 27–35. Impact Factor: 1.0 https://doi.org/10.1002/1521-3951(200202)229:3%3C1121::AID-PSSB1121%3E3.0.CO;2-H.
- 78. Vibrational spectra and normal co-ordinate analysis of 2-aminopyridine and 2-amino picoline, Sujin P. Jose, S. Mohan\*, Spectrochimica Acta Part: A, 2005, 64, 240–245. Impact Factor: 4.098 10.1016/j.saa.2005.06.043

#### **5.3.** Papers Published in Conference Proceedings

- 1. Structural and morphological characterization of hydrothermally synthesized N-Carbon Dot@ Fe<sub>3</sub>O<sub>4</sub> composites for heavy metal ion detection, S Abinaya, A Baby, K Gurunathan, PB Sreeja, SP Jose, Materials Today: Proceedings,2022, 64, 1854-1858.
- 2. One-step electrodeposition of lead oxide doped-polypyrrole for 3D high performance supercapacitors, S Abraham, M Agnel, MM Antoinette, SP Jose, AIP Conference Proceedings, 2021, 2369 (1), 020118.
- 3. Additive manufacturing of novel Ti-30Nb-2Zr biomimetic scaffolds for successful limb salvage, V Chakkravarthy, SP Jose, M Lakshmanan, P Manojkumar, RL Narayan, Kumran M, Materials Today: Proceedings, 2022.

- 4. Investigations on Bio-mineralization of reduced graphene oxide aerogel in the presence of various polymers, S Asha, GV Kumar, AN Ananth, SP Jose, MAJ Rajan, Materials Today: Proceedings, 2019, 9, 389-396.
- 5. Temperature dependent electron transport behavior of poly (methyl methacrylate)/silver functionalized reduced graphene oxide films, S Asha, AN Ananth, GV Kumari, GS Okram, SP Jose, MAJ Rajan, AIP Conference Proceedings, 2018, 1942 (1), 110045.
- A statistical study on the dry wear and friction characteristics of Al-12.6 Si-3Cu-(2-2.6 wt.%) Ni piston alloys, B Sunil, VR Rajeev, S Jose, Materials Today: Proceedings, 2018, 5 (1), 1131-1137.
- Superior Electrochemical Performance of Graphene Oxide and Graphene Analogue MoS<sub>2</sub> 3DStructures with Polypyrrole, T. Prasankumar, Biny R. Wiston, R. Ilangovan and Sujin P. Jose, Chennai-Nanogathering 2017, National conference on Nanomaterials and Nanobiotechnology (CNG-NCNN'17), NCNSNT, University of Madras, Chennai, 7<sup>th</sup>-8<sup>th</sup>, February, 2017.
- Supercapacitive energy storage performance of nanostructured multi-transition metal oxide LiMn<sub>2</sub>O<sub>4</sub>, iny R. Wiston, B. Anjali, T. Prasankumar and Sujin P. Jose, 19<sup>th</sup> Jan, 2017
- 9. Solid state synthesis of rare earth orthochromite La (1-x)SmxCrO3 nanoperovskite with its dopant concentrations, Nitthin Ananth, P. Sivaprakash, V. Nagarajan, M. Nilofer Fathima Kani, D. Sophia, ilofer Fathima Kani, D. Sophia, Sujin P. Jose and S. Arumugam, National Level Conference on Nanoscience and Nanotechnologies in the Livelihood Enhancement of Common Man (NSLECM-2017) 8 & 9<sup>th</sup> February, 2017
- Designing of silk sericin and CuO bionanocomposite films at different concentrations, Dinesh. S, Veeralakshmi. S, Aalagumanikumaran. N, Sujin Jose, Prakash. S, International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli (2017) 13-15<sup>th</sup> March, 2017
- 11. Green synthesis of copper oxide nanoparticles using Pterocarpus Marsupium resin (Vengai), avithra V, Anitha. R, Vijayakumar. A, <u>Sujin Jose</u>, Prakash. S, nternational conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli (2017), 13-15<sup>th</sup> March, 2017
- 12. Synthesis and Characterization of Zinc Oxide Dopped Sericin Nanoparticles Using Precipitation Method, Veeralakshmi. S, Dinesh. S, Aalagumanikumaran. N, <u>Sujin</u> <u>Jose</u>, Prakash. S, International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli (2017), 13-15<sup>th</sup> March, 2017
- Green Synthesis of Nano Copper Oxide Particles from Azadirachta Indica Plant Gum and their characterization, Anitha. R , Pavithra V, Vijayakumar. A, Sujin Jose, Prakash. S, International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli (2017), 13-15<sup>th</sup> March, 2017

- 14. Superior Electrochemical Performance of 3D structures of Graphene oxide and Graphene analogue MoS<sub>2</sub> with Polypyrrole, T. Prasankumar and Sujin P Jose, JNCASR-I2CAM School-2017 on Clean and Renewable Energy Technologies via Chemical Route, JNCASR, Bangalore (2017), 27<sup>th</sup> November 2<sup>nd</sup> December 2017.
- 15. Solid state synthesis of rare earth A. Nitthin Ananth, P. Sivaprakash, V. Nagarajan, <u>Sujin P Jose</u>, S. Arumugam 29<sup>th</sup> Annual General Meeting of Materials Research Society of India and National Symposium On Advances In Functional And Exotic Materials (2018), SRM Hotel, Tiruchirappalli, February 14-16, 2018.
- 16. Removal of Lead from the ground water by the synthesized PANI/Fe3O4 nanocomposite, Dr. Sujin P Jose, National conference on recent advanced Materials (NCRAM 2018), Thiruvalluvar University College of Arts and Science, Vandavasi, 23<sup>rd</sup> -24<sup>th</sup> February 2018
- 17. Vibrational Spectroscopic and Quantum chemical Investigations on 3,4 Lutidine R. Tamilarasi, S. Sivaprakash and Dr. Sujin P Jose, 2<sup>nd</sup> International Conference on Materials and Technology-Synthesis Processing and Applications, Feb 20 and 21 (ICMAT-SPA-2018)
- **18.** Vibrational Spectroscopic and Quantum chemical Investigations on 2,4 Lutidine, M. Sangeetha, S. Sivaprakash and Sujin P Jose, Feb 20 and 21 (ICMAT-SPA-2018)
- 19. Removal of lead from the groundwater by the synthesized PANI/Fe<sub>3</sub>O<sub>4</sub> nanocomposite, Kaaviah Manoharan, Jagadesh Kailasam, T. Prasankumar, E. Manikandan,and Dr. Sujin P Jose, 2<sup>nd</sup> International Conference on Materials and Technology-Synthesis Processing and Application, International Seminar on Advanced Nanomaterials (ISAN-2018), University of Madras, Chennai, February 27 & 28, 2018
- 20. Nanostructured interconnected h-BN/B2O3 composite, Cristano Woi. Chnadkiram Gautam, Dibyendu, Vijay, Mishra, Nasneer ahamed, Sehmus Ozden, Sujin P Jose, Santhosh Biradar, Robert Vajtai, Chandra Tiwri, Douglas Galvao, Pulickel Ajayan, MRS Spring Meeting & Exhibit, April 2-6, 201
- 21. Superior electrochemical performance of 3D structures of graphene oxide and graphene analogue MoS<sub>2</sub> with polypyrrole, T. Prasankumar, J. Vigneshwaran and Dr. Sujin P Jose, International Conference on Advanced nanomaterials for energy, environment, and Healthcare applications (ANEH-2018), KSR College of Technology, Sale, August 31 &
- Nano Silver decorated Chitosan based Polyelectrolyte Microcapsules induced generation of excited Oxygen in Curcumin, B.Prakash, A. Nimrodh Ananth, S. Asha, G. Vanitha Kumari, Sujin P Jose, M. A. Jothi Rajan, Materials Today: Proceedings, 4, (2017), 4366–4371, April 2017, ISPAN 2015.
- Biocompatible fluorescent nano-apatite with ionic silver- Its antibacterial activity and cytotoxicity towards cancer cells, S. Asha, A. Nimrodh Ananth, G. Vanitha kumari, B. Prakash, Sujin. P. Jose, M. A. Jothi Rajana, Materials Today: Proceedings 4 (2017) 4309–4318, April 2017, ISPAN 2015.

24. Fourier Transform Raman and Infrared Spectral Investigations of 2, 6-dimethyl-2, 5-heptadien-4-one, S Mohan, A Jayaprakash, SP Jose, AIP Conference Proceedings, 2010, 1267 (1), 1209-1210.

## 5.4. Papers Presented in Conferences / Seminars

### 5.4.1. International

- 1. J. Vigneshwaran, Aseema Banu, T. Prasankumar and Sujin P. Jose\*, High performance supercapacitors enabled two-dimensional titanium carbide Ti3C2 (MXene) conductive electrode, International Web Conference on Advanced Materials Science and Engineering (ICAMSE-2020), 11-12<sup>th</sup> September, 2020.
- T. Prasankumar, Raghavan Prasanth, Suppanat Kosolwattana, R. Illangovan and Sujin P. Jose\*, Facile synthesis of Mn/Zn mixed oxides as a novel electrode for high performance supercapacitors, 4<sup>th</sup> Nano Today Conference, Best Abstract –Won NanoToday student travel award, Dubai, UAE, 06-10 December, (2015).
- 3. S. Asha, A. Nimrodh Ananth, M.A. Jothi Rajan, Sujin P. Jose\*, Biological (nano) Apatite- Extraction and Evaluation, Proc. International Conference on Nano Science & Engineering Applications.
- 4. T. Prasankumar, Sujin P. Jose\*, S. Sivaprakash, R. Nareshmuthu and V. Maheshpriya, Microwave synthesis, Characterization and Magnetic Properties of Fe<sub>3</sub>O<sub>4</sub>/Ag Nanocomposite for Functionalization, Proc. Int. Conf. on Nanomaterials and Nanocomposite synthesis, Properties and Application, pg. 41 (2013), 12-13 July,

#### 2013.

- 5. K. PremAnanth, Sujin P. Jose\* and R. Ilangovan, Microwave preparation. Electrochemical Performance of Fe<sub>3</sub>O<sub>4</sub> Nanoparticle for Supercapacitor Application, Proc. Int. Conf. 6<sup>th</sup> Asian Conf. on Electrochemical Power Sources, 131 ,2012.
- 6. K. Prem Ananth, Sujin P. Jose\* and R. Ilangovan, Quick Microwave Synthesis and Characterization of Magnetic Nanoparticles, Proc. Int. Conf. on Recent Trends in Advanced Materials, 52, 5-8<sup>th</sup> January 2012.
- 7. K. PremAnanth, Sujin P. Jose\*, K. S. Venkatesh, R.Ilangovan, Size Controlled Synthesis Strategy and Characterization of Magnetite Nanoparticles -A novel route, Proc. Intl. Conf. On Nano Technology, Innovative materials, processes, products, and application, pg. 82, 18-19 Oct 2012.
- 8. S. Mohan, A. Jayaprakash and Sujin P. Jose\*, Fourier transform Raman and infrared spectral investigation of 2,6-dimethyl-2,5-heptadien-4-one, AIP Conference Proceedings, 1267, pg. 1209-1210, 2010.
- 9. Sujin P. Jose\*, Evolving vistas in nanotechnology, Clinically applicable nanostructure Intl. Conf on Nanotechnology Nanotech, India 2009.
- S. Mohan, K.G.M. Nair, Sujin P. Jose\* and K.D. Manikandan, Formation of Cu coated Ag nanoclusters in soda- lime glass by sequential CuAg ion-exchange and ion irradiationtechnique, Proc. Intl. Conf. On Emerging, Exciting Worlds of Nano Technology, V.1, pg. 148, 2007.

11.B. Karthikeyan, S. Mohan and Sujin P. Jose\*, Spectroscopic and Glass transition investigations on Nd3+ doped NaF-Na2O-B2O3 glasses, Proc. Intl. Conf. On Emerging,

Exciting Worlds of Nanotechnology, V.1, pg. 148, 2007.

- 12. S. Mohan, B. Karthikeyan, Sujin P. Jose\* and R.H. Mas, Structural and optical studies on Nd3+ doped sodium lead bismuthate glass, Proc. Intl. Con f. on Advanced Materials, pg. 275-282, 2005.
- 13. Sujin P. Jose\*, and S. Mohan, FTIR and FTR investigations of Nicotinaldehyde, Proc. Intl. Conf. on International Spectroscopy, Chennai pg. 90, 2005.

### 5.4.2. International held within India

- M. Kaaviah, J. Vigneshwaran, T. Prasankumar and Sujin P. Jose\*, 3D-Elongated hollow tube-like structured high surface area porous carbon as an electrode material for supercapacitor, 3rd International conference on Applied Nanoscience and Nanotechnology" (ICANN-2019) Alagappa University, Karaikudi., 18-19<sup>th</sup> March, 2019.
- 2. A. Aseema Banu, J. Vigneshwaran, M. Prabha and Sujin P. Jose\*, Structural and electronic properties of two-dimensional monolayer Ti2C MXene, A DFT study International Web Conference on Advanced Materials (IWCAM-2019), ST. Joseph's College, Trichy, Feb 28<sup>th</sup> & Mar 1<sup>st</sup>, 2019.
- 3. J. Vigneshwaran, T. Prasan Kumar, M. Kaaviah and Sujin P. Jose\*, Synthesis of spinel LiMn2O4 and its potential for fabrication of supercapacitors, International conference on supercapacitors, energy storage and applications (ICESA-2019), Centre for materials for 4Electronic Technology (C-MET), Thrissur, March 8-10, 2019.
- 4. Sibi Abraham, J. Vigneshwaran, T. Prasan Kumar, and Sujin P. Jose\*, One-step fabrication of three-dimensional binder-free polypyrrole/reduced graphene oxide/iron oxide electrode for high-performance supercapacitor, International conference on supercapacitors, energy storage and applications (ICESA-2019), Centre for materials for Electronic Technology (C-MET), Thrissur, March 8-10, 2019.
- 5. S. Girija, P. Ananthappan, V.S. Vasantha and Sujin P. Jose\*, Simultaneous detection of dopamine and uric acid using Stannic oxide doped polypyrrole/reduced graphene oxide nanocomposite, International Conference on Nanomedicines, Madurai Kamaraj University, Madurai, (ICON 2019).
- 6. T. Prasankumar, J. Vigneshwaran and Sujin P. Jose\*, Superior electrochemical performance of 3D structures of graphene oxide and graphene analogue MoS<sub>2</sub> with polypyrrole, International Conference on Advanced nanomaterials for energy, environment and Healthcare applications (ANEH-2018), KSR College of Technology, Salem, August 31 & September 1, 2018.
- 7. J. Vigneshwaran, T. Prasankumar, A. M. Kannan and Sujin P. Jose\*, Redgum derived High Surface Area Porous Carbon as an electrode material for EDLCs, International Conference on Advanced nanomaterials for energy, environment and Healthcare applications (ANEH-2018), KSR College of Technology, Salem, August 31 & September 1, 2018.
- A. Nitthin Ananth, P. Sivaprakash, V. Nagarajan, Sujin P. Jose\*, S. Arumugam, Solid state synthesis of rare earth orthochromite La(1-x)SmxCrO<sub>3</sub> nanopervoskite with its dopant concentrations, 29<sup>th</sup> Annual General Meeting of Materials Research Society of India and National Symposium On Advances In Functional And Exotic Materials (2018), SRM, Hotel, Tiruchirappalli, February 14-16, 2018.

- Kaaviah Manoharan, Jagadesh Kailasam, T. Prasankumar, E. Manikandan and Sujin P. Jose\*, Removal of lead from the groundwater by the synthesized PANI/Fe<sub>3</sub>O<sub>4</sub> nanocomposites, International Seminar on Advanced Nanomaterials (ISAN-2018), University of Madras, Chennai, February 27 & 28, 2018.
- R. Tamilarasi, S. Sivaprakash and Sujin P. Jose\*, Vibrational Spectroscopic and Quantum chemical Investigations on 3,4 Lutidine, 2<sup>nd</sup> International Conference on Materials and Technology-Synthesis Processing and Applications, (ICMAT-SPA-2018).
- 11. M. Sangeetha, S. Sivaprakash and Sujin P. Jose<sup>\*</sup>, Vibrational Spectroscopic and Quantum chemical Investigations on 2,4 Lutidine, 2<sup>nd</sup> International Conference on Materials and Technology-Synthesis Processing and Applications, (ICMAT-SPA-2018).
- 12. T. Prasankumar and Sujin P. Jose\*, Superior Electrochemical Performance of 3D structures of Graphene oxide and Graphene analogue MoS<sub>2</sub> with Polypyrrole, JNCASR-I2CAM School-2017 on Clean and Renewable Energy Technologies via Chemical Route, JNCASR, Bangalore, 27<sup>th</sup> November 2<sup>nd</sup> December 2017.
- Pavithra V, Anitha. R, Vijayakumar. A, Sujin Jose\*, Prakash. S, Green synthesis of copper oxide nanoparticles using Pterocarpus Marsupium resin (Vengai), International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli, 13-15<sup>th</sup> March, 2017.
- 14. Anitha. R, Pavithra V, Vijayakumar. A, Sujin Jose\*, Prakash. S, Green Synthesis of Nano Copper Oxide Particles from Azadirachta Indica Plant Gum and their characterization, International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli, 13-15<sup>th</sup> March, 2017.
- 15. Dinesh. S, Veeralakshmi. S, Aalagumanikumaran. N, Sujin Jose\*, Prakash. S, Designing of silk sericin and CuO bionanocomposite films at different concentrations, International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli, 13-15<sup>th</sup> March, 2017.
- 16. Veeralakshmi. S, Dinesh. S, Aalagumanikumaran. N, Sujin Jose\*, Prakash. S, Synthesis and Characterization of Zinc Oxide Dopped Sericin Nanoparticles Using Precipitation Method, International conference in Biological, Chemical and Physical Sciences (ABCPS), Anna University, BIT Campus, Tiruchirappalli, 13-15<sup>th</sup> March, 2017.
- Aseema Banu and Sujin P. Jose\*, Theoretical Investigations of 3C-Silicon carbide in Zinc Blende Structure, Asian Consortium on Computational Materaials Science-ACCM, SRM University, Chennai, India, 22-24<sup>th</sup> September, 2016.
- Irthasa Aazem V.S, Vishnu R Nair, Stelbin Peter Figerez, T. Prasankumar, Sujin Jose, and Raghavan Prasanth, Three dimensional (3-D) network structured mixed metal oxides electrode for high performance supercapacitors, 4th International conference on Frontiers in Nanoscience and Technology, Cochin University of Science and Technology, 20-23 February, 2016.
- 19. A. Nitthin Ananth, P. Sivaprakash, V. Nagarajan, Sujin P. Jose, S. Arumugam, Investigations onto the physical properties of solid state synthesized nanostructure La(1-x)SmxCrO3 perovkites, International Conference on Nanomaterials and Molecular Research (ICNMR-2016), 9<sup>th</sup>-10<sup>th</sup> December, 2016.
- 20. A. NitthinAnanth, A. NimrodhAnanth and Sujin P. Jose\*, Amylase template systematic assembly of gold nanoparticles, 5<sup>th</sup> Conference on Neutron Scattering CNS, February 02-04, BARC, Mumbai (2015).
- Muthu. V, S. Rajashabala and Sujin P. Jose\*, Theoretical Investigation on N, S, N-S Doped Rutile TiO<sub>2</sub> – A DFT Study, Proc. International Conference on Nano Science & Engineering Applications.

- 22. T. Prasankumar, V. Maheshpriya and Sujin P. Jose\*, Microwave Synthesis and Characterization of Mn/Zn mixed oxide Nanocomposite for Supercapacitor application, Proc. Indo-US Workshop on Engineered Electrodes for Electrochemical Energy Storage, Chennai, 3<sup>rd</sup>-4<sup>th</sup> April, 2014.
- 23. T. Prasan Kumar, Sujin P. Jose, V. Maheshpriya and S. Sivaprakash, Microwave Synthesis and Characterization of Mn/Zn mixed oxide Nanocomposite for Supercapacitor application, Proc. Indo-German conference on Laser applications and Nanoscience, pg. 71, Thiruvananthapuram, 5-7<sup>th</sup> December, 2013.
- 24. Sujin P. Jose, T. Prasankumar, Aruna Ramachandran, R. Ilangovan, Surface Modification of Iron Oxide nanoparticle for the enhancement of Magnetic Properties, Proc. Indo-German conference on Laser applications and Nanoscience, pg. 72, Thiruvananthapuram, 5-7<sup>th</sup> December, 2013.

## 5.4.3. National

- 1. Sujin P. Jose\*, Nanoelectronic devices for medicine and health care, Proc. Ntl. Conf. on Advanced Materials NCAM (2008),2008.
- Jagadesh Kailasam, Kaaviah Manoharan, T. Prasankumar, E. Manikandan and Sujin P. Jose\*, Removal of lead from the groundwater by the synthesized PANI/Fe<sub>3</sub>O<sub>4</sub> nanocomposites, National Conference on Recent Advanced Materials (NCRAM-2018), Thiruvalluvar University College of Arts and Science, Vandavasi, February 23-24<sup>th</sup>, 2018.
- T. Prasankumar, Biny R. Wiston, R. Ilangovan and Sujin P. Jose\*, Superior Electrochemical Performance of Graphene Oxide and Graphene Analogue MoS<sub>2</sub> 3DStructures with Polypyrrole, Chennai-Nanogathering 2017, National conference on Nanomaterials and Nanobiotechnology (CNG-NCNN'17), National Centre for Nanoscience and Nanotechnology (NCNSNT), University of Madras, Chennai, 7<sup>th</sup>-8<sup>th</sup>, February, 2017.
- A.Nitthin Ananth, P. Sivaprakash, V. Nagarajan, M. Nilofer Fathima Kani, D. Sophia, Sujin P. Jose\* and S. Arumugam, Solid state synthesis of rare earth orthochromite La (1-x)SmxCrO<sub>3</sub> nanoperovskite with its dopant concentrations, National Level Conference on Nanoscience and Nanotechnologies in the Livelihood Enhancement of Common Man (NSLECM-2017), 8&9<sup>th</sup> February, 2017.
- Biny R. Wiston, B. Anjali, T. Prasankumar and Sujin P. Jose\*, Supercapacitive energy storage performance of nanostructured multi-transition metal oxide LiMn<sub>2</sub>O<sub>4</sub>, National seminar on Advanced Materials Research (AMR-2017, Alagappa University, Karaikudi, 2017.
- Biny R. Wiston, T. Prasankumar, B. Anjali, Aruna Ramachandran and Sujin P. Jose\*, Fabrication of Fe<sub>3</sub>O<sub>4</sub>/PANI nanocomposites as a promising candidate for supercapacitor electrode, Nineteenth National Convention of Electrochemists (NCE-19), pg. 116 National Institute of Technology, Tiruchirappalli, 28-29<sup>th</sup> March, 2016.

## 6. Conferences / Seminars / Workshops / Webinars Attended

- 1. Workshop Participation:Participated in Indo-US workshop on engineered electrodes for electrochemical energy storage, Chennai, 3-4 April 2014
- 2. UST: Workshop entitled Empowering your protein Research with Protein sample's cutting-Edge Technology" 14.08.2015
- 3. Bringing Nanoworld Together, Seminar at IITM, Chennai 3<sup>rd</sup> & 4<sup>th</sup> November 2015.
- 4. Conference Participation: Participated in Two days workshop on HRTEM at Central Instrumentation Centre, MKU on 7-8, January, 2016
- 5. One day workshop on Teaching and Research Methodologies in Physics MKU 25th

October 2016

- 6. National Conference on Materials for Energy Conversion and Storage, Pondicherry University, 11-13<sup>th</sup>March 2016
- Workshop on curriculum development on Nanoscience and Nanotechnolgy 7<sup>th</sup> October 2016, CDC, MKU
- International Conference on Recent Advances in Applied Sciences, St. Peters University (ISPA), Chennai "Novel Materials for Energy applications" on 11-13 Feb 2016
- 9. Participation 19<sup>th</sup> National convention of Elecrochemists, Trichy on 28-29<sup>th</sup>March,2016
- 10. Participated in the National Workshop on Enhancing Quality of Research Articles28.11.2017 at MKU
- 11. Workshop on intellectual property rights and innovation management in knowledge era 10<sup>th</sup> April 2017 at MKU
- 12. International seminar on advanced nanomaterials-ISAN 27-28<sup>th</sup> Feb 2018, University of Madras, Chennai
- 13. National conference on recent advanced materials at Thiruvalluvar University College of Arts and Science, Chennai on 23-24<sup>th</sup> Feb 2018
- 14. Attended a Seminar on Energy conversion and Storage in 2D material-based systems at Arizona State University, USA 22<sup>nd</sup> May 2018
- 15. Attended Seminar on building the grid of tomorrow: A cross-disciplinary bottom-up approach Arizona State University, USA 24<sup>th</sup> May 2018
- 16. Attended NANOTECHNOLOGY FORUM, JNCASR 30.05.2019
- 17. International Conference on exploring Nanostructures for enhanced power conversion- Efficiency of solar cells, Gandhigram Rural Institute University 7.8.2019
- 18. Participation on special Lecture on India and the world in 2020 on 04.02.20 at MKU
- 19. International webinar on SOLAR-very good solution for your future electrical demand, Madurai DiraviyamThayumanavar Hindu College, Tirunelveli College on 24.07.2020
- 20. Webinar Supercapacitors: New Age Energy Storage Devices, Ayya Nadar Janaki Ammal college, Sivakasi on 19.05.2020
- 21. International virtual seminar on Emerging technologies in Energy conversion and storage, Sathyabama Institute of Science and Technology, Chennai 1-2 nd June 2020
- 22. International webinar on functional properties and band gap engineering of ZnO-GaN alloys, JayarajAnnapackaiam College for women, Theni on 8<sup>th</sup> June 2020
- 23. International virtual conference on supercapacitors, batteries for future avenues, Bharathidasan University, Trichy 8-9 Sept 2020
- 24. Virtual Seminar on Recent advances in Materials science and nanotechnoloty, Bannariamman institute of Technology, Erode 4-6 June 2020
- 25. National Webinar on Computer simulation: A owerful tool for advance Scientific Research organized by Madan Mohan Malviya Post Graduate College, Deoria (India) 18<sup>th</sup> & 19 October 2020
- 26. National Symposium on functional nanomaterials, MKU 4<sup>th</sup> and 5<sup>th</sup> January 2019