

Curriculum Vitae –R. Jose

PERSONAL PROFILE	<p>PROFESSOR DR. RAJAN JOSE</p> <p>Faculty of Industrial Sciences and Technology Universiti Malaysia Pahang Lebuhraya Tun Razak 26300 Kuantan, Malaysia Tel: +6095492451 (Office) : +609620388 (Handphone) Fax: +6095492766 E-mail: joserajan@gmail.com; joserajan@ump.edu.my URL: http://www.ump.edu.my</p>	
DATE OF BIRTH	25 May 1971	
EDUCATION	Doctor of Philosophy (Ph.D.): Council of Scientific and Industrial Research (CSIR)/ Mahatma Gandhi University, Kottayam, India (2002)	
DETAILS OF CAREER	Nov 2010 – Present	Professor, Universiti Malaysia Pahang, Malaysia
	Mar 2010 – Oct 2010	Visiting Professor, Universiti Malaysia Pahang, Malaysia
	April 2008 – Feb 2010	Senior Research Fellow, National University of Singapore, Singapore
	Aug 2005 – March 2008	Postdoctoral Fellow, Toyota Technological Institute, Nagoya Japan
	Feb 2003 – Aug 2005	Postdoctoral Fellow, AIST, Shikoku, Japan
	Jan 2002 – Jan 2003	Dr. K. S. Krishnan Research Associate, Indira Gandhi Centre of Atomic Research, India
PROFESSIONAL AFFILIATIONS	<ul style="list-style-type: none"> • Chairman, Focus Group, Materials Technology, Universiti Malaysia Pahang, 2012 Onwards • Chairman, International Conference on Nanotechnology (ICONT) 2012 • Member, Senate, Universiti Malaysia Pahang 2012 Onwards • Member, Graduate Council, Universiti Malaysia Pahang, 2013 Onwards • Member, Research and Development Committee, Universiti Malaysia Pahang, 2013 Onwards • Editorial Board: Journal of Ceramics (Hindawi Publications) • Editorial Board: IEES (Edugait Press); • Editorial Board: International Journal of Nanoelectrons and Materials (Universiti Malaysia Perlis) • Member, Institute of Physics (2009 Onwards) • Member, American Chemical Society (2008 Onwards) • Member, Nanofiber Gateway (Nafigate) (2012 onwards) 	

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AWARDS AND RECOGNITION (Last Five Years)

- Excellence in Reviewing, Elsevier (2013)
- Distinguished Scholar Award (Anugerah Cendekia Bitara), Universiti Malaysia Pahang 2014
- Best Paper Award 5th Regional Conference on Materials Engineering, ASEAN University Network, Penang (2013)
- Distinguished Scholar Award (Anugerah Cendekia Bitara), Universiti Malaysia Pahang 2013
- Distinguished Scholar Award (Anugerah Cendekia Bitara), Universiti Malaysia Pahang 2012
- Distinguished Scholar Award (Anugerah Cendekia Bitara), Universiti Malaysia Pahang 2011,
- Outstanding Service Award, Universiti Malaysia Pahang (2011)
- Plenary and Keynote lecturer for a number of National and International Conferences/Seminars/Symposia
- Recognition award of International Center for Diffraction Data for significant contribution in Powder Diffraction File for release in 2010
- Recognition award of International Center for Diffraction Data for significant contribution in Powder Diffraction File for release in 2011
- Best paper award Malaysian Technological Universities Conference (MUCET), Bay View Hotel, Melaka, June 2010;

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TEACHING AND LEARNING

Curriculum Development: (i) Bachelor of Applied Sciences (Materials Technology), University of Malaysia Pahang. Course commenced from September 2012
(ii) Master of Applied Sciences (Renewable Energy), Under Development.

Undergraduate Teaching: (i) Engineering Mathematics; (ii) Basic Physics, (iii) Physics, (iv) Solid state physics.

Postgraduate Supervision:

Main Supervisor

Name	Program	Thesis title	Status
Baiju Vidyadharan	PhD	Electronic ceramic nanowires for supercapacitor electrodes	Graduated
Azhar Fakharuddin	PhD	A dye-sensitized solar module	Viva voce exam due on 12 Jan 2015
Saifful Kamaluddin Muzakir	PhD	Structure-property correlation of quantum dot solar cells using experimental results and first principle DFT calculations	Thesis submitted during October 2014
Izan Izwan Misnon	PhD	Synthesis and characterization of electrochemical materials for energy storage applications	Thesis will be submitted during February 2015
Radhiyah Abd Aziz	PhD	Layered alkaline transition oxides as hybrid capacitor electrodes	Thesis preparation
Irfan Ahmad	PhD	Vertical nanowires for dye-sensitized solar cells	Thesis preparation
Qamar Wali	PhD	Porous tin oxide nanostructures for dye-sensitized solar cells	Ongoing
Midhun Harilal	PhD	Metal nanowires by electrospinning for advanced electronics	Ongoing
Syam G Krishnan	PhD	Electrically modified MnO ₂ electrodes for supercapacitors	Ongoing
Zinab Hassanien Hassanien Bakar	PhD	Perovskite solar cells	Registered during Sep 2014
Amirul Edham Roslee	Masters	Thermophysical properties of some quantum confined structures	Thesis preparation
Nurul Khairiyah Mohd Zain	Masters	Development of activated carbon from palm kernel shells for supercapacitor applications	Thesis final correction
Nurul Ain Binti Manshor	Masters	Perovskite solar cells	Registered during Sep 2014

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Co-Supervision

Name	Program	Thesis title	Status
Naveen Kumar Elumalai	PhD	Band structure engineered metal oxide semiconductors for excitonic solar cells	Completed
Syed Farhan Hasany	PhD	Synthesis and characterization of magnetic nanoparticles for environmental applications	Completed
Le Viet Anh	Masters	Electrospun niobium pentoxide for energy conversion and storage	Completed
Abhishek Kumar	Masters	Electrospun titania nanofibers for dye-sensitized solar cells	Completed
V. M. Nair	PhD	Barium rare-earth antimonates	Completed
Amina Yaseen	PhD	Development of porphyrin dyes for solar cells	Ongoing
Tanveer Ahmad Khan	PhD	Development of medium density fiber boards	Ongoing

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Research Experience

I have been working on inorganic nanostructures for applications in photovoltaics, energy storage, electronics, optoelectronics, and healthcare areas since 1995. I developed new materials and processes for synthesis of nanomaterials and tailoring of their properties; new protocols for solar energy harvesting and energy storage. I hold 20 patents in the area of materials, solar cells, and supercapacitors and published over 100 papers in ISI rated journals. My papers have been cited over 3200 times in published literature.

My h- and g- indices are 29 and 52, respectively.

Details of my publications and citation profile can be accessed at public domain through the URLs

<http://scholar.google.com.my/citations?user=LgSpTSAAAAAJ&hl=en> and <http://orcid.org/0000-0003-4540-321X>

A screen shot of the “Google Scholar” page is pasted below for reference.

Rajan Jose
Universiti Malaysia Pahang
Electrospinning, dye-sensitized solar cells, supercapacitors
Verified email at ump.edu.my - Homepage
My profile is public

Citation indices	All	Since 2009
Citations	3106	2740
h-index	29	27
i10-index	50	44

Year	Citations
2006	~10
2007	~20
2008	~30
2009	~40
2010	~60
2011	~80
2012	~100
2013	~120
2014	~140

Title	Cited by	Year
<input type="checkbox"/> Metal Oxides for Dye-Sensitized Solar Cells R Jose, V Thavasi, S Ramakrishna Journal of the American Ceramic Society 92 (2), 289-301	268	2009
<input type="checkbox"/> Nanostructured ceramics by electrospinning R Ramaseshan, S Sundarajan, R Jose, S Ramakrishna Journal of Applied Physics 102 (11), 111101	199	2007
<input type="checkbox"/> Graphene-polymer nanofiber membrane for ultrafast photonics Q Bao, H Zhang, J Yang, S Wang, DY Tang, R Jose, S Ramakrishna, ... Advanced Functional Materials 20 (5), 782-791	180	2010
<input type="checkbox"/> Controlled electron injection and transport at materials interfaces in dye sensitized solar cells V Thavasi, V Renugopalakrishnan, R Jose, S Ramakrishna Materials Science and Engineering: R: Reports 63 (3), 81-99	178	2009
<input type="checkbox"/> Quantum dot anti-CD conjugates: Are they potential photosensitizers or potentiators of classical photosensitizing agents in photodynamic therapy of cancer? R Bakalova, H Ohba, Z Zhelev, T Nagase, R Jose, M Ishikawa, Y Baba Nano Letters 4 (9), 1567-1573	162	2004
<input type="checkbox"/> Spray deposition of electrospun TiO ₂ nanorods for dye-sensitized solar cell K Fujihara, A Kumar, R Jose, S Ramakrishna, S Uchida Nanotechnology 18 (36), 365709	144	2007
<input type="checkbox"/> Structural and optical properties of electrospun TiO ₂ nanofibers A Kumar, R Jose, K Fujihara, J Wang, S Ramakrishna Chemistry of Materials 19 (26), 6536-6542	109	2007
<input type="checkbox"/> Structure-property correlation of CdSe clusters using experimental results and first-principles DFT calculations R Jose, NU Zhanpeisov, H Fukumura, Y Baba, M Ishikawa Journal of the American Chemical Society 128 (2), 629-636	106	2006
<input type="checkbox"/> Nanostructured Nb ₂ O ₅ polymorphs by electrospinning for rechargeable		

Co-authors Edit...

Prof Dr PE Seeram Ramakrishna, FRE...

Archana S Panikar

VELMU velmurugan thavasi

Vijila Chellappan

M.V.Reddy

BVR Chowdari

Abhishek Kumar

Divakar Ramachandran

Naveen Kumar Elumalai

Dr Kazutoshi Fujihara

A. Sreekumaran Nair

Chwee Teck (C.T.) Lim

E. Mohandas

Izan Izwan Misnon

Kunal Mukherjee

Wee-Eong Teo

Venugopal Jayarama Reddy

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Research Projects and Roles (Last Five Years)

1. “Increasing charge mobility using metal/metal oxide core/shell structures in perovskite solar cells” July 2014 – June 2016, RM 126,000 (**Principal Investigator**)
2. UMP Flagship research program on materials for energy and environment, Aug 2014 – July 2016, RM 248,000 (**Program Coordinator**)
3. “Crystal structure of complex perovskites” International Union of Crystallography, 15 December 2012 – 14 December 2013, RM 3060.50 (**Principal Investigator**)
4. “Fundamental research and finite elemental modeling of microwave sensor embedded with metal materials”, RAGS, 15 December 2012 – 14 December 2014, RM 55, 000 (**Co-Researcher**)
5. “Mechanism of charge transport in photoelectrode of dye-sensitized solar cells” RAGS, 15 December 2012 – 14 December 2014, RM 80, 000 (**Co-Researcher: Principal Investigator at Universiti Teknologi Mara, Jangka**)
6. “Direct catalysis conversion of natural gas into methanol via liquid phase room temperature oxidation” Exploratory Research Grant Scheme, 15 July 2012 – 14 July 2015, RM 90,000
7. Simultaneous environmental remediation and biodiesel production (Program), Malaysian Technological University Network Centre of Excellence Program (**Program Leader**) 1 June 2012 – 31 May 2014, RM 220,000.
 - o Characterization and utilization of gypsum and gypsum based compound as heterogeneous catalysis in transesterification (**Principal Investigator**)
 - o “In situ transesterification of oil-laden spent bleaching clay using calcium based compound as heterogeneous catalyst (**Co-Researcher**)”
8. Solar Cloths: New photovoltaic device to work in non-conventional areas, Malaysian Technological University Network Centre of Excellence Program (**Program Leader**) 1 June 2012 – 31 May 2014, RM 220,000
 - o “Synthesis and characterization of metals, metal oxide semiconductors, and hybrids (**Principal Investigator of the project**)”
 - o Optimization of formation mechanism of a percolating nanonets in non-woven fiber cloths containing natural polymers and hole-conducting species (**Co-Researcher**)
9. Graphene nanosheets synthesis and characterization (Project), in the Mixed Rare Earth Oxides/Graphene nanomaterials as green energy systems (Program), Malaysian Technological University Network Centre of Excellence Program (Co-Researcher) 1 June 2012 – 31 May 2014, RM 450,000.
10. On the scalability of dye-sensitized solar cells: An exploratory study on correlation between charge transport parameters and photoelectrode area, Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education, Govt of Malaysia, RM 174,300 (Co-Principal Investigator) 1 Mei 2012 – 30 April 2014.

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11. New prototype of dye-sensitized solar cells delivering clean energy @30 cents per watt, Prototype Research Grant Scheme (PRGS), Ministry of Higher Education, Govt of Malaysia. RM 250,000 (Co-Principal Investigator) 1 July 2012 – 30 June 2014
12. Investigation of formation mechanism of a percolating network of inorganic nanowires in organic – inorganic fibrous films, FRGS, RM 45K (RDU110103) 1 Feb 2011 – 31 Jan 2014 (Principal Investigator).
13. Development of One Dimensional Nanostructured Material for Efficient Energy Storage, ERGS, (RDU 110602), RM 97 K, 1 Aug 2011 – 31 July 2013 (Principal Investigator).
14. Carbon Nanocomposite Paper for Energy Storage, RM 40K (RDU100394), 15 Dec 2010 – 14 Dec 2012 (Co-Researcher).
15. Free-Standing Noble Metal and Alloy Nanofibers Fabricated Using Poly (Vinyl Chloride) Nanofibers as Sacrificial Template-for Electronic and Medical Applications, RM 40K (RDU110311), May 2011 – May 2013 (Co-Researcher)
16. Electrochemical Study on Graphene and Its Functional Derivatives, RM 40K (RDU110352), Aug 2011 – Aug 2013 (Co-Researcher)
17. Investigation on Formation Mechanism of a Percolating Network of Inorganic Nanowires in Organic - Inorganic Fibrous Films, 40 K (RDU 110103), (Co-Researcher)
18. Fabrication of Electrospun Nanofibers Strip Based Indicator for Direct Monitoring of Glucose, 35.5 K (RDU 110330), July 2011 – July 2012 (Co-Researcher)
19. Quantum Dots for Clean Energy Technology, 40 K (RDU110312), May 2011 – May 2013 (Co-Researcher)
20. Fabrication and Characterization of Fe_{1-x}Ni_x Magnetic Nanofibers Alloys by Electrospinning Method 37 K (RDU 110378), Sep 2011 – Sep 2013 (Co-Researcher)
21. “Organic-Inorganic Functional Films by Electrospinning” UMP Internal grant, RM40K, (Principal Investigator).
22. “New Materials and Methods for Smart Windows” UMP Internal grant, RM40K, (Principal Investigator).
23. “Development of Nanostructured TiAl Alloys for Light weight Construction and High Temperature Applications” UMP Internal RM Grant 40 K (Co-Principal Investigator)
24. “Nanonets: New materials and Devices for Integrated Energy Harnessing and Storage” National Research Foundation (NRF/CRP), Oct 2009 – Oct 2014, Singapore, S\$ 8.75 Million, Collaborator, Team member
25. “Development of New Prototypes of High Performance Quantum Dot Excitonic Solar Cells”, National Research Foundation (NRF/CEPO), Singapore, Oct 2008 – Oct 2011, S\$ 1 Million, Co-Principal Investigator.
26. “On the stability of the cathode/electrolyte interface in solid oxide fuel cells” CONACYT Research Grant- Ciencia Basica-2007, (Jun 2009 – May 2012), \$702,000 Mexican Pesos - Collaborator

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List of Patents (Three Patents has licensed by AIST, Japan)

1. High energy density supercapacitors from transition metal doped titanium dioxide nanostructures
R. Jose, B. Vidyadharan, I. I. Misnon, R. A. Aziz, J. Ismail, M. M. Yusoff
Patent Application, Malaysia Patent Office, PI 2014701623 (17 June 2014)
2. Novel layered titanates for energy storage application
R. Jose, R. A. Aziz, I. I. Misnon, M. M. Yusoff
Patent Application PI 2014001646, Malaysia Patent Office (18 June 2014)
3. Novel flower-like MnO₂ and MnO₂-PANi composites for energy storage application
R. Jose, I. I. Misnon, R. A. Aziz, M. M. Yusoff
Patent Application PI 2013003169, Malaysia Patent Office (28 Aug 2013)
4. Energy Storage Devices
R. Jose, B. Vidyadharan, I. I. Misnon, R. A. Aziz, M. M. Yusoff
Patent Application: PI 2013003071, Malaysia Patent Office (August 2013)
5. Method of fabricating a supercapacitors from palm kernel shells
R. Jose, Nurul Khairiyah Mohd Zain, I. I. Misnon, R. A. Aziz, Mohd Hasbi Ab Rahim, M. M. Yusoff
Patent Application: UI 2013700979, Malaysia Patent Office (June 2013)
6. A dye-sensitized solar cells device
R. Jose, A. Fakharuddin, M. M. Yusoff
Patent Application: PI 2013000529, Malaysia Patent Office (Feb 2013)
7. Dye-sensitized solar cells with enhanced photoelectric conversion
R. Jose, Mashitah Mohd Yusoff, Izan Izwan Misnon, Saifful Kamaluddin Muzakir
Patent Application No. 2011004321, Malaysia Patent Office (Sep 2011)
8. Low temperature synthetic method of nanoparticles
R. Jose, Z. Zhelev, T. Nagase, Y. Makita, R. Bakalova, and M. Ishikawa
Jpn. Kokai Tokkyo Koho JP 2006143526 (June, 2006)
9. Manufacture of phosphor particle with high emission efficiency
R. Jose, Z. Zhelev, T. Nagase, and M. Ishikawa
Jpn. Kokai Tokkyo Koho JP 2006143919 (June, 2006)
10. Broad Yellow Fluor-Quantum Dot (Carboxyl) – Ready for Bioconjugation
Z. Zhelev, R. Bakalova, H. Ohba, R. Jose
Japanese PatentJP-2005-268776
11. Rapid procedure for water solubilization of CdSe core nanocrystals using mercaptosuccinic acid as a surface modifying agent
H. Ohba, R. Bakalova, Z. Zhelev, T. Nagase, M. Ishikawa, R. Jose
Japanese Patent: Toku-gan: 2004-096070
12. Synthesis of luminescent CdSe/ZnS core-shell nanocrystals via “green” chemical approach using zink acetate as a Zink precursor

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T. Nagase, Y. Makita, Z. Zhelev, Z., R. Jose, Y. Yamaoka, M. Ishikawa, V. Biju, R. Bakalova, Y. Baba; **Japanese Patent JP-2004-238756**

13. A novel process for the synthesis of nano particles of ceramic oxide powders in a single step processing using aqueous and non-aqueous precursor
J. James, R. Jose, Asha M. John and J. Koshy
US Patent No. 6835367 dt.28-12-2004
14. Single step process for the synthesis of nanoparticles of ceramic oxide powders
J. James, R. Jose, Asha M. John and J. Koshy
US Patent No. 6761866 GR.dt 13-07-2004
15. A novel process for the synthesis of nano particles of ceramic oxide powders in a single step processing using aqueous and non aqueous precursor
J. James, R. Jose, Asha M. John and J. Koshy
Indian Patent No. NF 0058 / 98 (1999)
16. Process for preparation of novel ceramic substrates $Ba_2DyMO_{5.5}$ (M = Zr, Sn and Hf) for Bi-cuprate superconductors and a process for the preparation of phase pure superconducting Bi(2223) and Bi(2223)-Ag thick film on this newly developed Substrates
J. Koshy, J. Kurian, P.K.Sajith, K.S. Kumar, R. Jose, A M. John and A.D. Damodaran
Japanese Patent JPP No.3554910 Gr.dt.21-05-2004
17. Ceramic substrate for Bi-cuprate superconductors and a process for preparing the same
J.Koshy, J.Kurian, P.K.Sajith, K.S.Kumar, R. Jose, Asha M. John and A.D Damodaran
US Patent No: 6, 140, 275 dated Oct.31, 2000
18. Novel Ceramic substrate for Bi-cuprate superconductors
J.Koshy, J.Kurian, P.K.Sajith, K.S.Kumar, R. Jose, Asha M. John and A.D.Damodaran
US Patent No: 5, 741, 747 dated April 21, 1998
19. Novel Ceramic substrate for Bi-cuprate superconductors
J. Koshy, J. Kurian, P. K. Sajith, K. S. Kumar, R. Jose, Asha M. John and A. D. Damodaran
European Patent File No. 96308464.5-2208 dated 28-01-1997
20. Process for preparation of novel ceramic substrates $Ba_2DyMO_{5.5}$ (M = Zr, Sn and Hf) for Bi-cuprate superconductors and a process for the preparation of phase pure superconducting Bi (2223) and Bi (2223)-Ag thick film on this newly developed substrate
J. Koshy, J. Kurian, P.K.Sajith, K. S. Kumar, R. Jose, A. M. John and A. D. Damodaran
Indian Patent, 1028/DEL/96 dated 1996

Research Products and Awards

1. “Solartins”, **Invention of the year (Diamond Medal)**, British Invention Show, Barbican Convention Centre, London, 22 – 25 October 2014. This invention also received a “**Double Gold Medal**” and a “**Gold Medal**”.
2. “Poweron” **Platinum Medal**, British Invention Show, Barbican Convention Centre, London, 22 – 25 October 2014. This invention also received a a “**Gold Medal**”.
3. “Multichannel nanotubes” Gold Medal, 25th International Invention, Innovation, and Technology Exhibition (ITEX), Kuala Lumpur May 9 -11, 2014
4. “A high energy density transition metal oxide nanowire supercapacitor” Silver Medal, 25th International Invention, Innovation, and Technology Exhibition (ITEX), Kuala Lumpur May 9 -11, 2014
5. “Biodiesel from waste sources” Silver Medal, 25th International Invention, Innovation, and Technology Exhibition (ITEX), Kuala Lumpur May 9 -11, 2014
6. “Multichannel nanotubes” Gold Medal, “Creation, Innovation, Technology & Research Exposition 2014 (CITREX 2013), Universiti Malaysia Pahang, 27 – 28 February 2014.
7. “A high energy density transition metal oxide nanowire supercapacitor” Gold Medal, “Creation, Innovation, Technology & Research Exposition 2014 (CITREX 2013), Universiti Malaysia Pahang, 27 – 28 February 2014.
8. “A green supercapacitor employing waste to wealth” Gold Medal, Bio Innovation Awards, BioMalaysia, 21October (2013)
9. “Clean Energy Storage Devices from Oil Palm Wastes” Gold Medal, INPEX, Pittsburgh, US, June 19 – 21 (2013)
10. “Supercapacitors from used batteries” Gold Medal 24th International Invention, Innovation, and Technology Exhibition (ITEX), Kuala Lumpur May 9 -11, 2013
11. “High energy density – cum – power density supercapacitors from engineered materials” Silver Medal, ITEX, Kuala Lumpur May 9 -11, 2013
12. “High Performance Supercapacitors using Activated Carbon from Waste Palm Kernel Shell” Gold Medal, Malaysian Technology Expo, 21 – 23 Feb 2013 (This product was chosen as the best during the event)
13. “A knowledge based design for highly efficient dye-sensitized solar cells” Silver Medal, Malaysian Technology Expo, 21 – 23 Feb 2013

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14. "Supercapacitors made from CuO nanofibers" Bronze Medal, Malaysian Technology Expo, 21 – 23 Feb 2013
15. "High energy density cum power density supercapacitors from engineered materials", Gold medal, "Creation, Innovation, Technology & Research Exposition 2013 (CITREX 2013), Universiti Malaysia Pahang, 27 – 28 March 2013.
16. "A green supercapacitor employing waste to wealth", Silver medal, "Creation, Innovation, Technology & Research Exposition 2013 (CITREX 2013), Universiti Malaysia Pahang, 27 – 28 March 2013.
17. "Highly efficient dye-sensitized solar cells", Silver medal, "Creation, Innovation, Technology & Research Exposition 2013 (CITREX 2013), Universiti Malaysia Pahang, 27 – 28 March 2013.
18. "Photoelectrochemical cells employing electrospun nanowires", Bronze medal, "Creation, Innovation, Technology & Research Exposition 2013 (CITREX 2013), Universiti Malaysia Pahang, 27 – 28 March 2013.
19. "Nanostructured metal oxide flowers and wires for advanced electronics and renewable energy" Silver Medal, 23rd International Invention, Innovation, & Technology Exhibition (ITEX 2012), Kuala Lumpur, 17 – 19 May 2012.
20. "Highly efficient dye-sensitized solar cells by band structure engineering" Silver Medal, 23rd International Invention, Innovation, & Technology Exhibition (ITEX 2012), Kuala Lumpur, 17 – 19 May 2012.
21. "Hydrothermal synthesis of various morphologies of metal oxides for electrochemical applications" Gold Medal "Creation, Innovation, Technology & Research Exposition 2012 (CITREX 2012), Universiti Malaysia Pahang, 27 – 28 March 2012.
22. "Highly efficient dye-sensitized solar cells by band structure engineering" Gold Medal "Creation, Innovation, Technology & Research Exposition 2012 (CITREX 2012), Universiti Malaysia Pahang, 27 – 28 March 2012.
23. "High Performance Supercapacitors using Activated Carbon from Waste Palm Kernel Shell" Gold Medal "Creation, Innovation, Technology & Research Exposition 2012 (CITREX 2012), Universiti Malaysia Pahang, 27 – 28 March 2012.
24. "Flexible-cum-light weight solar cells" Silver Medal "Creation, Innovation, Technology & Research Exposition 2012 (CITREX 2012), Universiti Malaysia Pahang, 27 – 28 March 2012.
25. "Enhanced Efficiency of dye-sensitized solar cells by band structure engineering of metal oxide semiconducting nanostructures" Bronze Medal "PECIPTA 2011", Kuala Lumpur 13 – 15 Sep 2011

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26. “Enhanced Efficiency of dye-sensitized solar cells by band structure engineering of metal oxide semiconducting nanostructures” Silver Medal, Creation, Innovation, Technology & Research Exposition 2011 (CITREX 2011), Universiti Malaysia Pahang, 13 – 14 April 2012.

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Keynote/Plenary Lectures

1. R. Jose, “Nanostructured Materials for Renewable Energy Devices” International Conference on Recent Advancements in Materials Science & Technology (ICRAMST -13), 17–19 Jan 2013, National Institute of Technology, Suratkal, India.
2. R. Jose, “Nanostructured Materials: Retrospective and Perspectives” (Inaugural Plenary Lecture), SCIENTIA 2013, 6 – 7 February 2013, University of Kerala, India.
3. R. Jose, “Material Characterization for Nanostructured Renewable Energy Devices” International Conference on Molecular Spectroscopy of Advanced Materials & Biomolecules” (IMSAB-2012) during 7–9 August, 2012, Bishop Moore College, Mavelikara, India.
4. R. Jose, “Band structured engineered metal oxide semiconductors for solution processed solar cells” Second International Conference on Nanostructured Materials and Nanocomposites (ICNM 2014), 19 – 21 Dec 2014, Mahatma Gandhi University, Kottayam, India.

Invited Lectures

1. R. Jose, “Nanoceramics for high performance excitonic solar cells” International Symposium on Advanced Functional Materials (ISAFM 2014), 1 – 2 Aug 2014, Monash University Campus, Malaysia.
2. R. Jose, “Band structure engineered nanostructured metal oxide semiconductors for excitonic solar cells” 2nd International Conference on Advanced Functional Materials, 19-21 Feb 2014, Trivandrum, India.
3. R. Jose, “Nanoceramics for excitonic solar cells” International Conference on Emerging Frontiers and Challenges in Chemistry, 17-18 Feb 2014, Trivandrum, India.
4. R. Jose, “Engineered Materials for energy storage devices” BOND 21, Aug 2013, Penang, Malaysia
5. R. Jose, I. I. Misnon, S. K. Muzakir, A. Fakharuddin, R. A. Aziz, M.Rauf, M. Z. N. Khairiyyah and M.M. Yusoff “Nanostructured Renewable Energy Materials: Tailoring of Properties and Advanced Devices” International Conference on Nanomaterials Technology Specilized Conference 2012, Advanced Membrane Technology Research Centre, Universiti Teknologi Malaysia, Johor 6-7 March 2012 (Malaysia)
6. R. Jose, “Metal oxides for dye-sensitized solar cells”, Seminar on Quantum Dot Solar Cells and Related Technologies, 25-26 April 2012, AMREC, Kulim.
7. R. Jose, “On Tailoring of Electron Transport in TiO₂ Nanowires” International Conference on Nanotechnology (ICONT 2011), Kota Kinabalu, June 6-9, 2011
8. R. Jose, “Polymer – Nanocomposites by Electrospinning for Clean Energy Conversion, Storage, and Advanced Electronics “ICAMN 2010” Kuala Lumpur, Malaysia Nov 29 – Dec 1, 2010

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9. P. R. S. Wariar, V. M. Nair, V. R. Kumar, M. M. Yusoff, and R. Jose, "Nanostructured $A_2(RE,B)O_6$ (A = Ba, Sr; RE = Rare-earth, B = Sb, Zr) Perovskite Ceramics and their potential application in Microwave and Superconducting Electronics" ICAMN 2010" Kuala Lumpur, Malaysia Nov 29 – Dec 1, 2010
10. R. Jose, P. S. Archana, A. Le Viet, B. Qiaoliang, K. P. Loh, S. Ramakrishna, "Polymer – Nanocomposites by Electrospinning for Clean Energy Conversion, Storage, and Advanced Electronics "2nd International Conference on Natural and Biopolymers" Windsor Castle, Kottayam, India Sep 24 – 26, 2010
11. R. Jose, "Nanostructured Materials for Energy Applications" Pankajakasturi College of Engineering, University of Kerala, India 27 Sep 2010.
12. R. Jose, K. Mukherjee, T. H. Teng, A. Le Viet, S. Ramakrishna, "One-dimensional nanostructures by electrospinning for excitonic solar cells" CochNano2009 (International Conference), CUSAT, India 3-6 Jan 2009.
13. R. Jose, "Excitonic Solar Cells" Dept of Physics, Univ. of Kerala, 10 Dec, 2008
14. R. Jose, M. Ishikawa, Y. Baba, "Low temperature synthesis of cadmium chalcogenide quantum dots" Third International Symposium on Single-Molecule Bioanalysis and Nano-biodevice (SMBN 2004)- Tenth National Meeting of the Society for Chemistry and Micro-Nanosystems (10 CHEMINAS)- November 24-25, 2004, Takamatsu, Japan.
15. R. Jose, "Raman Amplification Bandwidth Tailoring of Tellurite Glasses" Photonics Forum Meeting, Toyota Technological Institute, Nagoya, Japan July 2006)
16. R. Jose, "Nanoscience – what is new?" Nanoscience and Technology Lecture (Bishop Moore College, Mavelikara, August 2005)
17. R. Jose, "Quantum Dots" Invited Lecturer during inauguration of Advanced Functional Materials Laboratory, Mar Ivanios College Trivandrum, August 2005)

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List of publications

Book Chapters

1. V. M. Nair, R. Jose, K. Raju, P. R. S. Warier, "Optimized combustion Process for Nanostructured Ba_2RESbO_6 complex perovskites and their applications in microwave and superconducting electronics" (Submitted)
2. A. Le Viet, M. V. Reddy, R. Jose, B. V. R. Chowdary, S. Ramakrishna, "Electrode kinetic studies of electrospun Nb_2O_5 nanostructures" **Solid State Ionics: Fundamental Researches and Technological Applications**; Ed. B. V. R. Chowdary et al, Wuhan Technological University Press (2010)
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Curriculum Vitae –R. Jose

International Scientific Services

- **Editor of (i) Journal of Ceramics (ii) International Journal of Nanoelectronic Materials**
- **Chairman, International Conference on Nanotechnology (ICONT 2012), MS Garden Hotel, Kuantan, 30 May – 1 June 2012.**
- Reviewer of Research Projects
- Reviewer of PhD theses
- Academic Assessor
- A regular peer reviewer (referee) for:
 - Nanoenergy
 - Dalton Transactions
 - Physica B
 - ACS Applied Materials & Interfaces
 - Journal of Materials Research
 - Journal of the American Ceramic Society
 - Journal of the American Chemical Society
 - The Journal of Physical Chemistry C
 - Langmuir
 - RSC Advances
 - Journal of Applied Physics
 - Organic Letters
 - Journal of Materials Science: Materials in Electronics
 - Journal of Materials Science
 - Materials Letters
 - Composite Science and Technology
 - Journal of Alloys and Compounds
 - Crystal Research and Technology
 - Nanotechnology
 - Journal of Physics D: Applied Physics
 - Electrochemistry Communications
 - Chinese Optics Letters
 - Journal of Ceramic Technology
 - Materials Chemistry and Physics
 - Ceramic International
 - Applied Ceramic Technology
 - Nano
 - Journal of Engineering and Technology