



**Dr. K. Jeganathan**  
**Professor and Head**

### Contact

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**Academic Qualifications : M.Sc., M.Phil., Ph.D.**

**Teaching Experience : 11 Years**

**Research Experience : 23 Years**

### Additional Responsibilities

1. Coordinator, Centre for Nanoscience and Nanotechnology, Department of Physics, Bharathidasan University
2. RUSA - Coordinator, Bharathidasan University, Tiruchirappalli

## Areas of Research

- One-dimensional self-assembled nitride semiconductor (GaN, InN, AlN and its alloys, core-shell nanowires) nanostructures for LEDs, Solar cell and water splitting applications
- 2D layered materials (Graphene, MoS<sub>2</sub>, WS<sub>2</sub>, NbS<sub>2</sub>, etc) for electronic, optoelectronic and energy harvesting devices
- Hybrid organic and inorganic Pervoskites for next generation photovoltaic applications
- Single Atom Catalyst functionalized semiconductor nanowires for Photo-electrochemical assisted water splitting
- Drug Delivery and SERS detection of bio molecules.

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	6	7
	M.Phil.	10	01
Project	PG	30	06
	UG / Others		

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
117	14	--	69	--

<b>Cumulative Impact Factor (as per JCR) :</b>	<b>396.63</b>
<b>Average Impact Factor</b>	<b>: 3.39</b>
<b>h-index</b>	<b>: 24</b>
<b>i-10 index</b>	<b>: 54</b>
<b>Total Citations</b>	<b>: 2002</b>

## Funded Research Projects

### Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	AvH, Germany	2014	2014	InGaN/GaN Nanowire based Solar cell	16.00
2	UGC – MRP	2012	2015	Vertically aligned ZnO nanowires on p-type GaN for UV-Visible light emitting diode (LED) applications	13.00
3	DBT - Nanomission	2010	2013	Investigation on the Mechanism, Efficacy and Genotoxic Risk of Gold Nanoparticles: Application in Photothermal Mediated Anticancer Therapy. (CO-PI)	88.00
4	DST - Nanomission	2009	2012	Fabrication and Characterization of Self-assembled One-dimensional Semiconductor Nanostructures.	215.00
5	DST - TSG	2009	2011	Fabrication of Energy Efficient Hybrid Organic Light Emitting Device (OLED) on Nanostructure templates for white lighting applications.	20.00
6	DST - Fast Track	2009	2012	Fabrication of Self-assembled Gallium Nitride (GaN) Nanowires by Chemical Vapour Deposition.	20.40
7	BDU	2008	2009	Establishment of Centre for Nanoscience and Nanotechnology	75.00

### Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DST – Nanomission	2016	2019	III- Nitride semiconductor core-shell nanowire for next generation photovoltaic applications	33.41
2	DRDO	2016	2019	One Dimensional semiconductor based (In,Ga)N photocatalytic hydrogen generation	60.71
3	RUSA R & I	2017	2019	Sustainable Energy Technologies – Efficient Renewable Energy Power Generation with Energy Storage for Sustainable Smart Grid	150.00

## Consultancy Projects

**Others : Nano User Facility @ Centre for Nanoscience and Nanotechnology,  
Department of Physics**

Revenue Generated by extending NUF / Consultation : Rs. **8,28,446 /- (since 2011 to 2018)**

## Distinctive Achievements / Awards

1. Tamil Nadu Scientist Award (TANSA)-(2017)
2. Fellow, The academy of Science, Chennai (2015)
3. AvH-Germany – Equipment Subsidy award - 20,000 Euro (2016)
4. Best Paper presentation – Cash Prize , Materials Research Society of Singapore, ICMAT, Singapore (2013)
5. DST- Nanomission – Major research grant (2009)
6. DST- Young Scientist (DST) - 2008
7. Alexander von Humboldt Fellowship (AvH), AvH Foundation, Germany (2006-2007)
8. Science Technology Agency (STA) award, Govt. of Japan (2000-2002)
9. Young Student Award, Abdus Salam International Center for Theoretical Physics, Trieste, Italy. (1998)
10. Student Associateship, Third world academy of Sciences, MASPEC-CNR, Parma, Italy (1998)

## Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 11

1. Raman-Armstrong International Lecture on Space exploration, Dec 19, 2018.
2. BUDS Think Nobel Prize Special Seminar, March 25, 2018
3. International conference on Sustained Energy Technologies (i - SET 2018), June 27 & 28, 2018
4. APEIRON – 2018, Feb 7, 2018
5. National Science Day, Feb 28, 2018
6. UGC-HRDC Refresher Course Coordinator - Materials Science (ID) - (2016)
7. UGC-HRDC Refresher Course Coordinator - Nano Science (ID) - (2017)

8. Workshop on Advances in Nanotechnology: Fabrication, Processing and Applications (28/02/2014 - 1/03/2014)
9. National Science Day (2014)
10. DST-SERB Workshop (GMW) for Young Scientists In Physical And Mathematical Sciences (22/01/2011-23/01/2011)
11. Awareness Programme on Nanotechnology to college Teachers , Feb 8, 2009.

## Events Participated

### Conferences / Seminars / Workshops: 54

- 1) Intercalated Bi<sub>2</sub>S<sub>3</sub> sheets on ZnO@ZnS core shell nano array photocathode for enhanced visible light driven photoelectrochemical properties, N. Anbarasan, S. Sadhasivam, M. Mukilan and **K. Jeganathan**, International Sustainable Energy Technologies (i-SET 2018), Bharathidasan University, Tiruchirappalli, on June 27-28 2018.
- 2) SrTiO<sub>3</sub> NPs as HER co-catalyst coupled with Si nanowires as photocathode to improved photoelectrochemical water splitting performance, S. Gopalakrishnan and **K. Jeganathan**, International Sustainable Energy Technologies (i-SET 2018), Bharathidasan University, Tiruchirappalli, on June 27-28 2018.
- 3) Low dimensional ZnO/CdSe core shell Nanorod arrays for efficient and stable Photoelectrochemical water splitting, P. Manivel, S. Ranjith, G. Paulraj, S. Sadhasivam, **K. Jeganathan**, International Conference on Recent Trends in Analytical Chemistry, Department of Analytical Chemistry, University of Madras, Guindy Campus, Chennai, March 15-17, 2018.
- 4) Evaluation of GaN nanostructures using Au catalyst by halide chemical vapour deposition, N. Anbarasan, S. Sadhasivam, M. Mukilan and **K. Jeganathan**, International Conference on Recent Trends in Analytical Chemistry, Department of Analytical Chemistry, University of Madras, Guindy Campus, Chennai, March 15-17, 2018
- 5) Nitride-Semiconductor based photoanode for Photoelectrochemical water splitting, N. Anbarasan, M. Mukilan, **K. Jeganathan**, 3<sup>rd</sup> National Seminar on Advanced Oxidation Processes (AOP-2017) BIT Campus, Anna University, Tiruchirappalli-620024, December 17-19, 2017.
- 6) Vertical Standing MoS<sub>2</sub> Nanosheets by CVD for high performance Electrocatalytic Hydrogen Evolution Reaction, G. Paulraj, P. Dharmaraj, N. Anbarasan, **K. Jeganathan**, International Conference on Nanoscience and Nanotechnology (ICONN 2017), Department of Physics and Nanotechnology, SRM University, Kattankulathur, August 09-11, 2017.

- 7) Ultralong InGaN Nanowires for Efficient Hydrogen Generation by Photoelectrochemical Water Splitting, M.Gopalakrishnan and **K.Jeganathan**, International Conference on Renewable Energy Science and Technology, Alagappa University, Karaikudi, March 10-11, 2017.
- 8) Reduced graphene oxide/ZnFe<sub>2</sub>O<sub>4</sub> nanocomposite for enhanced magnetic behavior and visible light photocatalytic activity, P. Manivel, S. Sadhasivam, K. S. Ranjith, C. Viswanathan, **K. Jeganathan**, International Conference on Renewable Energy Science and Technology -2017 (ICREST-2017), Alagappa University, karaikudi, March 10-11, 2017.
- 9) Thermo-responsive poly (N-isopropylacrylamide) chain grafted graphene oxide for membrane bio-fouling removal, P. Manivel, S. Sadhasivam, **K. Jeganathan**, International Conference On Nano For Energy And Water (NEW), University of Petroleum and Energy studies, Dehradun, India, February 22-24, 2017
- 10) Homogeneous Growth of Monolayer MoS<sub>2</sub> on silicon by chemical vapor deposition, G. Paulraj, P. Dharmaraj and **K. Jeganathan**, National conference on Nanomaterials and Nanobiotechnology: Chennai Nanogathering, February 7-8, 2017.
- 11) S. Gopalakrishnan and **K. Jeganathan**, Liquid exfoliated graphitic carbon nitrate (g-C<sub>3</sub>N<sub>4</sub>) nanosheets loaded with Si nanowires as photocathode for photoelectrochemical water splitting, International Conference on Advances in Functional materials (ICAFM 2017), January 6-8, 2017
- 12) Synthesis and flux growth of NdPO<sub>4</sub> single crystal for laser applications, S. Sadhasivam **K. Jeganathan** N.P. Rajesh, DAE-BRNS National Laser Symposium (NLS-25), KIIT University, Bhubaneswar December 20-23, 2016.
- 13) Improved photoelectrochemical water splitting using Silicon nanowires as photocathode, S. Gopalakrishnan and **K. Jeganathan**, National Conference on Research Advances in Materials Science and Applications, BIT Campus, Anna University, Tiruchirappalli-620024, August 19-20, 2016.
- 14) Exploring the efficacy of doxorubicin tethered polymeric liposomal curcumin: A robust platform for spectroscopic approach and combination therapy in MCF-7 breast cancer cells, T.S. Sheena, P. Balaji, V. Rajiu, M.A. Akbarsha, **K. Jeganathan**, National Conference on Research Advances in Materials Science and Applications, BIT Campus, Anna University, Tiruchirappalli-620024, August 19&20, 2016.
- 15) Doxorubicin conjugated liposomes encapsulated curcumin for intracellular drug delivery", T.S Sheena , P. Balaji, V. Rajiu , M .A Akbarsha and **K. Jeganathan**, NANO INDIA-2015 , Sastra University, Thanjavur, January 29-30, 2015.
- 16) Preparation of High Concentration of Graphene and Graphene - based Hybrids via Self Assembly process of Surfactants, R. Parameshwari & **K. Jeganathan**, Indo-French Seminar on "Women in Science" Through CEFIPRA, IISc, Bangalore, February (3 -5), 2015.

- 17) Plasmonics assisted hole injection enhancement in organic light emitting devices (OLEDs) using Gold and silver nanoparticles , P. Justin Jesuraj and **K. Jeganathan**, International union of materials research society (IUMRS) - International conference in Asia (ICA) - 2014, Fukuoka university, Fukuoka, Japan, August 24- 30, 2014.
- 18) Graphene on Conducting and Insulating substrates by Mechanical Beating Method, R. Parameshwari, M. Gunaseelan, **K. Jeganathan**, Graphene-2014, Phantoms Foundations France, May 6-9,2014.
- 19) Gold Nanoparticles assisted hole enhancement in OLEDs, P. Justin Jesuraj and **K. Jeganathan**, DAE-BRNS conference on Organic Devices: The Future Ahead (ODEFA-2014), DAE-BRNS, India, March 3-6, 2014.
- 20) The effect of nitridation on the structural, optical, and electrical properties of GaN nanoparticles, M.Gopalakrishnan, Purushothaman, V.Ramakrishnan,GM Bhalerao and **K. Jeganathan**, Recent Advances in Material Science - RAMS 2014, Bharathidasan University, Feb 3-4, 2014.
- 21) Structural, Optical and Magnetic properties of Graphene-ZnO Nanocomposites via Surfactant assisted method, R. Parameshwari and **K. Jeganathan**, International Confernece on Advanced Functional Materials (ICAFM-2014), CSIR- NIIST, Thiruvananthapuram, Kerala, February 19-21, 2014.
- 22) Direct growth of graphene on 4H-SiC by electron beam irradiation, P.Dharmaraj, P. Sundara venkatesh, R Parameshwari, V.Ramakrishnan K. Asokan, S. Balakumar, **K. Jeganathan**, IUMRS-ICA- 2013, IISC, Bangalore, December 16-20, 2013.
- 23) Fabrication, characterization and application of vertically aligned ZnO NWs by rf sputtering, P. Sundara venkatesh, **K. Jeganathan**, IUMRS-ICA- 2013, IISC, Bangalore, December 16-20, 2013.
- 24) Design of DOX tethered curcumin NPs and anticancer effects in human liver cells, V Rajiu, Balaji, Sheena, MA Akbarsha and **K. Jeganathan**, IUMRS-ICA- 2013, IISC, Bangalore, December 16-20, 2013.
- 25) Fabrication and characterization of self assembled GaN Nanostructures by chemical vapor deposition, V.Purushothaman and **K. Jeganathan**, International Union of Materials Research Society (IUMRS) - ICA 2013, IISC, Bangalore, December 16-20, 2013.
- 26) Influence of Surfactant on the formation of Graphene-ZnO Nanocomposites, R. Parameshwari, V.Ramakrishnan, **K. Jeganathan**, International Confernce on Nanomaterials & Nanocomposites (ICNN- 2013), Mother Theresa Women's University, Kodaikanal- 624101, July 11-12, 2013.
- 27) Fabrication and characterization of self assembled GaN Nanostructures by chemical vapor deposition, V. Purushothaman and **K. Jeganathan**, International conference on materials for advanced technologies (ICMAT- 2013), MRS -Singapore, June 30 - July 5, 2013.

- 28) Liquid-Phase Exfoliation of Graphene in Aqueous Media, R. Parameshwari and **K. Jeganathan**, National Seminar on Recent Trends in Crystal Growth & Nanomaterials (NSCGNM-2013), National College, Trichy-620001, March 13-15, 2013.
- 29) Fabrication and characterization of self assembled GaN Nanostructures by chemical vapor deposition, V. Purushothaman, M. Gopalakrishnan and **K. Jeganathan**, Nano India 2013, NISST, Trivandrum, Kerala, 19- 20, February 2013.
- 30) Controlled sublimation of 4H-SiC for the fabrication of epitaxial graphene, P.Dharmaraj, V.Gokulakrishnan, K. Ramamurt, **K. Jeganathan**, Second International Workshop on the Advanced Functional Nanomaterials (SIWAN-2013), Anna University, Chennai - 600 025, January 28-30, 2013
- 31) Role of nitridation on the structural, optical and electrical properties of GaN nanoparticles, M. Gopalakrishnan, V. Purushothaman and **K. Jeganathan**, Second International Workshop on the Advanced Functional Nanomaterials (SIWAN-2013), Anna University, Chennai - 600 025, January 28-30, 2013.
- 32) Sonication assisted synthesis of polyelectrolyte coated curcumin ("Nanocurcumin") for cancer therapy, V. Rajiu, R. Dhivya, A. Murugadas, T.S.Sheena, M.A.Akbarsha and **K. Jeganathan**, Second International Workshop on the Advanced Functional Nanomaterials (SIWAN-2013), Anna University, Chennai - 600 025, January 28-30, 2013.
- 33) Role of deposition rates on the performance of TPD/Alq<sub>3</sub> hetero junction OLEDs, P. Justin Jesuraj and **K. Jeganathan**, 6th International symposium on macro and supramolecular architectures and materials (MAM- 12): Nano systems and applications, World class university, GIST, South Korea and KSR College of technology, November 21-25, 2012.
- 34) Structural and optical properties of zinc oxide nanowires grown under oxygen over pressure by radio frequency magnetron sputtering, **K. Jeganathan** and P. Sundara Venkatesh, International Conference on Emerging Advanced Materials (ICEAN 2012), The University of Queensland, Brisbane, Australia, October 22 - 25, 2012.
- 35) Acid Free Synthesis of Graphene-ZnO Nanocomposites for Photocatalytic Applications, R. parameshwari, S. Prabhu, K. Jothivenkatachalam, V. Ramakrishnan, **K. Jeganathan**, IUMRS-ICA- 2013, IISC, Bangalore, December 16-20, 2013.
- 36) Fabrication and characterization of self-assembled GaN Nanostructures by chemical vapor deposition, **K. Jeganathan** and V.Purushothaman, International Conference on Emerging Advanced Materials (ICEAN 2012), The University of Queensland, Brisbane, Australia, October 22 - 25, 2012.
- 37) Point defects enhanced room temperature ferromagnetism in undoped ZnO nanorods, P. Sundara Venkatesh S. Arumugam and **K. Jeganathan**, International Union of Materials Research Society - International Conference in Asia 2012 (IUMRS-ICA 2012), BEXCO, Busan, Korea, August 26 -31, 2012.



- 38) Synthesis and Characterization of water Soluble Graphene powder, R. Parameshwari, Sai P. Teja and **K. Jeganathan**, IEEE Magnetics Society Summer School, SRM University, Chennai, July 21 - 27, 2012.
- 39) Enhancement in room temperature ferromagnetic behavior of undoped ZnO nanorods by point defects, P. Sundara Venkatesh S. Arumugam and **K. Jeganathan**, IEEE Magnetics Society Summer School, SRM University, Chennai, July 21 - 27, 2012.
- 40) Ferromagnetism in undoped GaN nanowires, V. Purushothaman, **K. Jeganathan**, R. K. Debnath, R. Calarco, and H. Luth, IEEE Magnetics Society Summer School, SRM University, Chennai, July 21- 27 2012.
- 41) Preparation of highly dispersed graphene sheets in water, R. Parameshwari, Sai P. Teja and **K. Jeganathan**, International conference on materials science and technology (ICMST 2012), Sts. Thomas College, Pala, Kottayam -686574, Kerala, June 10-14, 2012.
- 42) Fabrication and Characterization of vertically aligned ZnO nanowires, P. Dharmaraj, P. Sundara Venkatesh, V. Gokulakrishnan and **K. Jeganathan**, National seminar on advanced materials: processing and applications (NSMPA-2012), Bharathiar University, Coimbatore, March 29-30 , 2012.
- 43) A Novel Synthetic route to GaN and InGaN nanoparticles, M. Gopalakrishnan, V. Purushothaman, P. Sundara Venkatesh, V. Ramakrishnan and **K. Jeganathan**, National seminar on advanced materials: processing and applications (NSMPA-2012), Bharathiar University, Coimbatore, March 29-30 , 2012.
- 44) Effect of Deoxy group in enhancing the graphene dispersion in water, R. Parameshwari, Sai P. Teja and **K. Jeganathan**, National seminar on advanced materials: processing and applications (NSMPA-2012), Bharathiar University, Coimbatore, March 29-30, 2012.
- 45) Fabrication and characterization of self assembled GaN Nanostructures by chemical vapor deposition, **K. Jeganathan**, National seminar on advanced materials : processing and applications (NSMPA-2012), Bharathiar University, Coimbatore, March 29-30, 2012
- 46) High concentration graphene dispersion in aqueous media, R. Parameshwari, Sai P. Teja and **K. Jeganathan**, National Seminar on Indigenous Nanomaterials Development For Industrial Applications, Anna University, Chennai - 600 025, February 27 - 28, 2012.
- 47) The role of point defects on the enhancement of room temperature ferromagnetism in undoped ZnO nanorods grown by rf magnetron sputtering, P. Sundara Venkatesh, V. Purushothaman, S. Arumugam and **K. Jeganathan**, National Seminar on Indigenous Nanomaterials Development For Industrial Applications, Anna University, Chennai - 600 025, February 27 - 28, 2012.

- 48) Doxorubicin Conjugate Gold Nanorods: A Potential platform for Anti-cancer Drug Delivery, V. Rajiu, P. ArunkumaK. Premkumar and **K. Jeganathan**, NanoBio2012: second international Conference on Nanotechnology at the Bio-Medical Interface, Amrita Institute of medical Sciences. Kochi, Kerala, February 21-24, 2012.
- 49) Effect of oxygen pressure on the growth of ZnO nanowires by RF magnetron sputtering, P. Sundara Venkatesh and **K. Jeganathan**, International Conference on Recent Trends in Advanced Materials, (ICRAM-2012), VIT University, Vellore, February 20 – 22, 2012.
- 50) Effects of deposition rate on the performance of Alq3 based hetero junction OLEDs, P. Justin Jesuraj and **K. Jeganathan**, International conference on advanced materials (ICAM-2012), Loyola college, Chennai, January 5-7, 2012.
- 51) Growth and Characterization of vertically aligned ZnO nanowires by RF Magnetron Sputtering, P. Sundara Venkatesh, V. Ramakrishnan and **K. Jeganathan**, Gitam University, Vishakapattam, Andhara Pradesh, December 17 – 19, 2010.
- 52) Ferromagnetism in undoped GaN nanowires, V. Purushothaman, **K. Jeganathan**, R. K. Debnath, R. Calarco, and H. Luth, International conference on Magnetic materials (ICMM-2010), Saha Institute of Nuclear Physics, Kolkata, October 25-29, 2010.
- 53) Stability analysis of aspartic acid reduced gold nanoparticles, P. Justin Jesuraj and **K. Jeganathan**, National conference on Multi functional nanomaterials and nanocomposites, Bharathiyar university, Coimbatore, February 4-5, 2010.
- 54) Stabilization of Nanosomes using Silica nanoparticles, V. Rajiu and **K. Jeganathan**, National Conference on Recent Trends and Applications of Nanotechnology in Pharmacy and Biology, Anna University, Tiruchirappalli-620 024, January 21-22, 2010.

### Overseas Exposure / Visits

1. Nanyang Technical University, Oct 27-29, 2012, Singapore,
2. The University of Queenlands, Brisbane, Oct 22-25, 2012, Australia
3. Alexander von Humboldt (AvH) Research Fellow (Sep 2006 ~ Aug 2007)  
Forschungszentrum Juelich, Germany
4. National Institute of Advanced Industrial Science and Technology (AIST)  
Researcher Tenure Track, Tsukuba, Japan (June 2002 ~ Aug 2006)
5. Science and Technology Agency (STA) Fellow, Govt. of Japan (May 2000 ~ May 2002)
6. Post-Doctoral Fellow (Jan 2000-April 2000); Rhur University of Bochum, Germany

7. Abdus Salam International Center for Theoretical Physics (ICTP), Trieste, Italy. (1998)
8. Short term visit to MASPEC-CNR, Parma, Italy (1998)

Academic Visits to Overseas Countries: Italy, Germany, Japan, USA, Singapore, Malaysia, China, Australia, Netherlands and Belgium

## Membership in

### Professional Bodies

1. Indian Association for Crystal growth (since 1994)
2. O butsuri- JSAP, Japan (since 2001)
3. Alumni – Network, Member AVH foundation, Bonn Germany (Since 2008)
4. Fellow, The academy of Sciences Chennai (2015)

### Advisory Board

1. Advisor, Physics Forum - SOP, Bharathidasan University
2. Research Committee Member, Bharathidasan University (2017)
3. Liaison Officer (2017), Bharathidasan University, VC selection Committee
4. Member in organizing committee for several national and international conferences
5. Governing body member in Several Colleges

### Academic Bodies (such as Board of Studies etc.,)

1. Departmental Research advisory committee – SOP, Bharathidasan University
2. PG - Board of Studies, SOP, BARD
3. PG - BOS, Anna University of Technology, Trichy
4. BOS - Nanotechnology, University of Madras, Chennai
5. World Class Curriculum Development Cell (Nano-science and Nanotechnology), Bharathidasan University
6. External expert- UGC innovative course proposal
7. BOS - Physics, Lady Doak College, Madurai
8. BOS - Physics, Bishop Heber College, Tiruchirappali
9. BOS - Physics, Several autonomous /affiliated colleges of Bharathidasan Univ.

10. BOS-Nanotechnology - Adhoc committee Chairman (2009~2010)
11. Cultural committee member – Annual convocation, BARD (2008~2013)
12. Doctoral committee, Purchase/Technical committee, Research Selection committee, PAC, etc
13. Science awareness camp for School students - Resource Person - Science City Chennai
14. Resource Person -Tamil Nadu state council for Science and Technology, Interaction with School students
15. Recognized Research supervisor by national science academies (IAS) for Summer Research Fellow for Teachers and students
16. UGC-HRDC Refresher course coordinator - Materials Science (ID) - (2016)
17. UGC-HRDC Refresher course coordinator - Nano Science (ID) - (2017)
18. DST-FIST Coordinator - School of Physics (2018 ~ )

### Resource persons in various capacities

Number of Invited / Special Lectures delivered: 91

1. Special Lecture on “Advances in Nanoelectronics” Lady Doak College, Madurai, **Dec 18, 2018**
2. Special address in Raman - Armstrong Lecture on Space, organized by Bharathidasan University in association with Explore the space -Chennai, **Dec 19, 2018**
3. UGC-HRDC Refresher course on Physics in Physics, Madurai Kamaraj University, “The recent perspectives of Scanning Probe Microscope”, **Dec 3, 2018**
4. UGC - SAP sponsored short term course on Analytical techniques, The basics of STM and AFM,” **Dec 5, 2018**
5. 2<sup>nd</sup> International Conference on Recent Trends in Analytical Chemistry (ICORTAC-2018) entitled “MoS<sub>2</sub>/Si NW heterostructure for artificial photosynthesis”, Department of Analytical Chemistry, University of Madras, Guindy Campus, Chennai, **March 15-17, 2018.**
6. Summer School in Materials science - “Resource person”, UGC-HRDC, Bharathidasan University, **March 14<sup>th</sup>, 2018.**

7. International Conference on Material Physics on “Chief Guest”, PG and Research Department of Physics, Bishop Heber College, Tiruchirappalli, **January 29<sup>th</sup> 2018**.
8. Delivered an invited lecture in UGC Sponsored Refresher course in Nanoscience (Interdisciplinary), Bharathidasan University, **December 20<sup>th</sup> 2017– January 01<sup>th</sup> 2018**.
9. Invited talk in German and Indian-Partners in Education and Research entitled “InGaN NWs for water splitting application” Humboldt Colloquium in Bangalore India, **November 23<sup>th</sup>-25<sup>th</sup> 2017**.
10. Delivered an invited talk in Special lecture on “Multifunctional Nano carriers: A robust platform for biological applications , Department of Microbiology, Periyar University, Salem, **October 4<sup>th</sup> 2017**.
11. Short Term Course on Recent Advances in Materials Research on “Artificial photosynthesis using semiconductor Nanowire” Coimbatore Institute of Technology, Coimbatore. **April 4<sup>th</sup> 2017**.
12. Presented a lecture in UGC Sponsored 96<sup>th</sup> Orientation Programme for University College and Teachers entitled “How to write a research proposal?” UGC- UGC-HRDC Bharathidasan University, **March 24<sup>th</sup> 2017**.
13. Presented a lecture in UGC Sponsored 96<sup>th</sup> Orientation Programme for University College and Teachers entitled “How to write a research proposal?” UGC- UGC-HRDC Bharathidasan University, **March 17<sup>th</sup> 2017**.
14. Delivered an invited talk in International Conference on Advances in Biological, Chemical and Physical Sciences (ABCPS 2017) “Semiconductor NWs for hydrogen water splitting”, Anna University, BIT Campus, Tiruchirappalli, **March 14<sup>th</sup> 2017**.
15. Delivered an invited talk in Chennai Nano gathering 2017 National Conference on Nanomaterials and Nanobiotechnology on “Semiconductor photocatalytic assisted water splitting”, National Centre for Nanoscience and Nanotechnology, University of Madras, Guindy Campus, Chennai, **February 7<sup>th</sup>-8<sup>th</sup> 2017**.
16. Delivered an invited talk in National Conference on Current Advancement in Physics NCCAP-2017 on “Indium Gallium Nitride Nanowires by Chemical Vapour Deposition”, St. Johns College, Department of Physics, Palayamkottai, **February 3<sup>th</sup> -4<sup>th</sup> 2017**.
17. Presented a lecture in Science Academies Lecture Workshop on Emerging Trends in Material Science “Recent developments in materials science” Raja Doraisingham Govt.Arts College, PG Research Department of Physics, Karaikudi, Sivagangai, **January 3<sup>th</sup>-4<sup>th</sup> 2017**.

18. UGC Sponsored Refresher course in Materials Science (Interdisciplinary) ,UGC-Human Resource Development Centre, Bharathidasan University, **November 2<sup>th</sup> -22<sup>th</sup> 2016.**
19. Delivered an invited talk in National Seminar on Recent Advances in Nanoscience and Technology Nanomeet 2016 on “Resource person and Chaired a Session”, Centre for Nanoscience and Technology, Anna University, Chennai-24, **October 6<sup>th</sup>-7<sup>th</sup> 2016.**
20. Special Lecture on “Multifunction nanocarriers: A robust platform for biological applications”, Department of Microbiology, Periyar University, Salem, **October 4<sup>th</sup> 2016.**
21. Presented a lecture in Science Academy Lecture Workshop on Some Recent Trends in Physics on “Resource person and Chaired a Session, Kumarakuru College of Technology,Coimbatore, **September 7<sup>th</sup> -9<sup>th</sup> 2016.**
22. Delivered an invited lecture in TEQIP-II Sponsored Faculty Development Programme on Heuristic Approach for Information and Communication Engineering Research Problems, entitled “Research Issues in Nano Electronics”,University College of Engineering, BIT Campus, Tiruchirappalli ", **June 24<sup>th</sup>, 2016.**
23. Presented a lecture in International Conference On Recent Trends In Analytical Chemistry (ICORTAC-2015) entitled “Atomic Force Microscopy- A tool for the characterization of nanomaterials”, Department of Analytical Chemistry, University of Madras, Guindy campus, Chennai-600025, **December 28<sup>th</sup> -30<sup>th</sup>, 2015.**
24. Participated in International workshop: Updates on clinical radiotherapy, Dr. Kamakshi Institute of Medical Sciences and Research &Anna University, Chennai, **May 24<sup>th</sup>-27<sup>th</sup> 2016.**
25. Presented a lecture in Twenty sixth national seminar on crystal growth and epitaxy entitled “Wide band gap semicondncutor nanostrcutures”, Crystal Growth Centre, Anna University, Chennai, **March 14<sup>th</sup>&15<sup>th</sup> 2016.**
26. UGC - Refresher Course on “Nanowires & Applications” UGC-Human Resource Development Centre, Bharathidasan University, **February 17<sup>th</sup> 2016.**
27. Participated in 2<sup>nd</sup> National conference on nanophotonics (NCNP-2016) on Chaired a Session, School of Physics, Bharathidasan University, Tiruchirappalli, **March18<sup>th</sup>&19<sup>th</sup> 2016.**
28. Presented a lecture in National Seminar on Nanoscience and Nanotechnology entitled “Self-assembled GaN NWs by CVD”, Univ. of Kerala Trivandrum, **March 19<sup>th</sup>-20<sup>th</sup> 2015.**

29. Presented a lecture in Advanced Materials for Energy and Environmental Applications (AMEEA-2015) entitled "InGaN NWs by Chemical Vapour Deposition", Bharathiyar University, **March 18<sup>th</sup>-20<sup>th</sup> 2015**.
30. Presented a lecture in Workshop on Nitride Semiconductors entitled "InAlN/GaN HEMT structure", DRDO-SSPL, **February 9<sup>th</sup> -10<sup>th</sup> 2015**.
31. Presented a lecture in Recent trends in Materials Science entitled "Graphene a wonder material", EVR College, Trichy, **February 11<sup>th</sup> 2015**.
32. Delivered an invited lecture in International conference on semiconductor device and materials, entitled "Lattice matched and strained InAlN/GaN heterostructure by PA-MBE", Semiconductor Society and Anna University, Chennai, **February 3<sup>rd</sup> 2015**.
33. Delivered an invited lecture in Workshop on materials characterization: XRD and AFM, Madurai Kamaraj University, entitled "Scanning probe microscope : STM and AFM", **November 19 , 2014**.
34. UGC Refresher course in Physics, Academic Staff College, Bharathidasan University, **November 07, 2014** delivered a lecture on InGaN Nanowires for Solid state lighting applications.
35. Short term course on magnetic and semiconducting materials (MSN 2014), National Institute of Technology - Trichy, **November 1, 2014** delivered a special lecture on Perspective of Semiconductor devices.
36. Presented a lecture in International workshop on electronics Materials technology, entitled "GaN NWs based photocatalytic splitting of water using solar energy for a Hydrogen gas generation", Anna University, Chennai, **March 15, 2014**.
37. Delivered an invited lecture in Recent advances in Materials chemistry, entitled "Nanostructures for photocatalytic applications", Anna University, **March 8, 2014**.
38. Delivered an invited talk in National conference on nanophotonics, entitled "Plasmonic nanoparticles for efficiency enhancement in OLED", Bharathidasan University, **March 6, 2014**.
39. Delivered an invited lecture in Advanced Materials for science and technology, entitled "One-dimensional semiconducting nanostructures", Govt arts college, Karur, **February 10, 2014**.
40. An invited lecture in Workshop on Nanomaterials Characterization, entitled "Perspective of SPM: AFM and STM", University of Madras, Chennai, **November 6, 2013**.
41. Delivered a lecture in TEQIP II on Current Research Trends in Nanoscience & Technology and Application in Solar Cells Nanowires for future photovoltaic applications, Government College of Technology, Coimbatore, **May 18, 2013**.

42. UGC - Refresher Course, University of Madras, Chennai delivered lecture on Characterization of Nanomaterials by AFM and STM, **February 28, 2013.**
43. Delivered a lecture on Nanomaterials and applications at EVR college, Trichy on the occasion of National Science day /Physics association, **February 28, 2013.**
44. Delivered an invited talk at the State level seminar "Nanoscience and Nanotechnology" entitled "Synthesis and Fabrication of one dimensional nanostructures", Department of Physics, Nandha Arts and Science College, Erode, **February 8, 2013.**
45. Presented a lecture in Science Academics' (IAS) Lecture workshop on Recent Developments in Physics at Department of Physics, Sri G.V.G. Visalakshmi College for Women, Udumalpet, **February 06 - 07, 2013.**
46. Delivered a lecture in Second International workshop on advanced functional nanomaterials (SIWAN-2013), entitled "Eshelby twist in Nanowires" Centre for Nanoscience and Technology & Centre for international affairs, Anna University, Chennai, **January 28-30, 2013.**
47. Presented a lecture on Current Trends in Material Science & Nanostructured Materials (CTMN 2013), entitled "Fabrication and Characterization of Semiconductor Nanowires by Chemical Vapor Deposition", Department of Physics & Chemistry, Cauvery College for Women, Tiruchirappalli. **January 23-24, 2013.**
48. Delivered an invited talk at International Workshop on Crystal Growth and Characterization of Advanced Materials and Devices, entitled "CVD growth of GaN Nanowires", Crystal Growth Centre, Anna University, Chennai, **December 16-19, 2012.**
49. Presented a lecture in Twenty Fourth National Seminar on Crystal Growth (XXIV-NSCG), entitled "InAlN/GaN HEMT by MBE", Crystal Growth Centre, Anna University, Chennai. **December 20-22, 2012.**
50. Presented an invited lecture on Refresher Course in Nanosciences for the University and College Teachers, entitled "Graphene electronics", Department of Nanoscience and Technology, Bharathiar University, Coimbatore, **December 17, 2012.**
51. Delivered a lecture in Regional science congress on science for shaping the future of India, entitled "InGaN one dimensional nanostructures by Chemical Vapor deposition" Kongunadu Arts and Science College, Coimbatore, held during December 15 & 16, 2012.
52. Delivered invited lecture in Rev. (Prof.) K.C. Mathew endowment lecture on Nanophotonics, entitled "Introduction to Nanophotonics", Department of Physics, Bishop Moore College, Mavelikara. **December 6, 2012.**
53. Presented a lecture in Nano revelation 2012 – Preparation and Applications of Carbon Nano Materials on Graphene Electronics, Science city, Chennai, **November 2, 2012.**
54. Presented an invited lecture on MBE growth GaN nanostructures at Nanyang Technical University, Singapore, **October 29, 2012.**



55. Delivered an invited lecture at International Conference on Emerging Advanced Nanomaterials, entitled "Fabrication of self-assembled GaN nanostructures by CVD", The University of Queensland, Brisbane, **Australia, October 22 – 25, 2012.**
56. Delivered an invited talk in Science Awareness programme for school students on Nanotechnology, Department of Botany, Govt. Arts College, Karur, **July 14, 2012.**
57. Presented a lecture at National Seminar on Advanced Materials: Processing and Applications (NSAMPA-2012), entitled "GaN nanostructures by CVD" PG and Research Department of Physics, National College, Tiruchirappalli, **March 29-30, 2012.**
58. Presented a lecture at UGC sponsored National Seminar on Recent trends in Crystal Growth and Nano Materials entitled "One dimensional wide band gap Semiconducting Nanostructures by Chemical Vapor Deposition", PG and Research Department of Physics, National College, Tiruchirappalli, March 15<sup>th</sup> -17<sup>th</sup>, 2012.
59. Presented an invited talk in the Workshop on Functional Materials, entitled "One dimensional GaN and InGaN nanostructures by Chemical Vapor Deposition", Department of Physics, Periyar University, Salem, **March 14, 2012.**
60. Delivered an invited talk in Recent Trends in Advanced Materials, School of Physics, "One-dimensional nanostructures by CVD" Madurai Kamaraj University, Madurai, **March 8, 2012.**
61. Delivered an invited talk at International Conference on Nanomaterials and Applications ICNMA 2012, entitled "The Era of Carbon Nanostructure: Graphene", Mother Teresa University, Kodaikanal, **February 28-29, 2012.**
62. Presented an invited talk in Physics Association Meeting on "Era of Carbon Nanostructures" at PG and Research Department of Physics, Jamal Mohamed College, Tiruchirappalli, **February 9, 2012.**
63. Delivered an invited lecture on Research day programme, entitled "Recent Trend in Nanoelectronics" at Department of Physics, St. Joseph's College, Tiruchirappalli, **January 28, 2012**
64. Delivered invited talk in Refresher Course on Nanoscience 2011, University of Madras, Chennai, **November 15, 2011.**
65. Presented a lecture in Workshop on Materials Science and Atomic/Molecular Physics Experiments using the Low Energy Ion Beam Facility (LEIBF) entitled "Low energy carbon implantation on catalytic metals for Graphene fabrication", Inter University Accelerator Centre (IUAC), New Delhi, October 21<sup>th</sup> & 22<sup>th</sup>, 2011.
66. Presented a lectured in Asia Pacific Conference on Characterization of Nanomaterials , entitled "Characterization of Nanomaterials" organized by Crystal growth centre, Anna University, Chennai, **September 22 – 24, 2011.**

67. Delivered a lecture at International Conference on Recent Advancements in Earth Resources Research-The Road To The Future, Perspective of nanowires –building blocks, Department of Geology, Periyar University, Salem, **September 07 – 09, 2011.**
68. Delivered an invited talk at the National Conference on Nanotechnology in Engineering, entitled "Introduction to Nanotechnology" SRIRAM Engineering College, Perumalpattu , **August 26, 2011.**
69. Delivered an invited talk in RENS 2011, entitled "Basics of Nanoelectronics", Jayaram Engineering College, Karatampatty, **August 19, 2011.**
70. Presented a lecture in Recent Trends In Nano Technology And Computing In The Field Of Science & Engineering entitled Introduction to Graphene & One dimensional Semiconducting Nanostructures, ISTE Chapter, Karaikal Polytechnique College, Varichikudy, Karaikal, May 6<sup>th</sup> , 2011.
71. Delivered an invited lecture at National conference on Nanotechnology, entitled One dimensional Semiconducting Nanostructures" University of Madras, **March 14-16, 2011.**
72. Delivered an invited talk at National Conference on Recent Advances in Nanotechnology and Biosensors (NCNB – 2011), entitled "Nanoelectronics – an introduction" at Alagappa University, Karikudi, **March 3-4, 2011.**
73. Presented a lecture in State Level Seminar on Nanostructured Materials (SSNM), entitled on "One – dimensional nanowires fabrication and applications", Physics Research Centre, S.T. Hindu College, Nagercoil, **February 11 & 12, 2011.**
74. Delivered a special lecture at Sri. SRNM college, Sattur, Virudhunagar (DIST) on **January 25, 2011** on the occasion of silver Jubilee celebration of Physics Department.
75. Refresher course on Nanotechnology, University of Madras, Chennai, **December 3, 2010** Delivered two lectures on 1). One dimensional nanowires for Nanoelectronics applications. 2). Wonders of Carbon- Graphene nanostructures.
76. Refresher course on Physics, Madurai Kamaraj University, Madurai, **November 19, 2010** Delivered lectures on One dimensional nanowires for biological applications.
77. Refresher course on Physics, Bharathiyar University, Coimbatore **November 12, 2010** Delivered lectures on One dimensional nanowires for Nanoelectronics and biological applications.
78. Presented a lecture in Workshop on Recent Trends in Physics, entitled "Semiconductor 1D Nanowires and its Applications", Madurai Kamaraj University, Madurai, **October 11-13, 2010.**
79. Delivered an invited lecture on UGC sponsored Intercollegiate Seminar on “Nanoscience and Technology, on One dimensional Nanowire for future Nanoelectronics applications”, Department of Physics, Jamal Mohamed College, Tiruchirappalli. , **October 07, 2010.**

80. Novel Applications of Nano Technology' NANO T10, Arunai Engg. College, T.V. Malai, **29, 30 September. – October 1, 2010** delivered invited talk on "Introduction to Nanoelectronics.
81. Presented a lecture in an Inaugural function of the Physics Association. entitled "Key note address – nanoelectronics Future?", Department of Physics, Bishop Heber College, Tiruchirappalli, **August 5, 2010.**
82. Delivered an invited lecture at National Conference on Recent Trends and Applications of Nanotechnology in Pharmacy and Biology (NCNPB 2010), entitled "Semiconductor nanowires for biological applications", Anna University, Tiruchirappalli, **January 21-22, 2010.**
83. Delivered an invited lecture in National Seminar & Exhibition on NON-DESTRUCTIVE EVALUATION (NDE 2009)- Industrial Conference on Nanowires for sensors, BHEL Tiruchirappalli, Tamilnadu, **December 14-16, 2009.**
84. Presented a lecture in UGC- Faculty Development Programme on "Semiconductor nanostructures", International Centre for Nanotechnology University of Madras – Chennai, **November 11 & 12, 2009.**
85. Presented a lecture in Workshop on Nanomaterials on "Nature inspired nanotechnology", Holy Cross College, Tiruchirappalli, **March 2, 2009.**
86. Presented a lecture in Workshop on Frontier topics in Physics on "Introduction to Nanotechnology", Chikkanna Govt Arts college, Tiruppur, **Feb 27-28, 2009.**
87. Delivered an invited talk in Indo - US workshop on Visible and UV sources for solid state lighting and water purification entitled "GaN nanostructures by rf-MBE", Crystal Growth Centre, Anna University, Chennai -25, **January 5 - 7, 2009.**
88. Delivered an invited talk in Nanotechnology for clean energy entitled "Nanoelectronics", Kurinchi college of Engineering. and Technology, **Aug 14, 2008.**
89. Presented a lecture in Recent advances in materials Science entitled on "GaN nanomaterials and applications", Alagappa University, Karaikudi, **March 7, 2008.**
90. Presented a lecture in Science day celebration- Seminar on Nanomaterials entitled "Introduction to Nanotechnology", Govt Arts College, Karur, **Feb 22, 2008.**
91. Presented a lecture in Crystal Growth and Thin Film Techniques entitled on "Introduction to Nanoscience and Nanotechnology", Holy Cross College, Tiruchirappalli, **Feb 14, 2008.**

## Others

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|--|-------|
| 1. Articles published in Newspapers / Magazines      | : 1   |
| 2. Products developed                                | : NIL |
| 3. No. of PhD Thesis evaluated                       | : 20  |
| 4. No. of PhD Public Viva Voce Examination conducted | : 20  |
| 5. Sequences submitted in GenBank                    | : NA  |

\*\*Social Interests and Initiatives / Articles in News papers etc can also be included

### Recent Publications with Impact Factor

1. M. Sathiya Deepika, R. Thangam, T. S. Sheena, R. Sasirekha, S. Sivasubramanian, M. Dinesh Babu, **K. Jeganathan**, R. Thirumurugan, (2019), "A novel rutin-fucoidan complex based phytotherapy for cervical cancer through achieving enhanced bioavailability and cancer cell apoptosis", *Biomedicine & Pharmacotherapy*, 109, 1181-1195. (Impact Factor: 3.457)
2. R. Sasirekha, T. S. Sheena, D.M Sathya, P. Santhanam, Helen E. Townley, **K. Jeganathan**, S. Dinesh Kumar, K. Premkumar, (2019), "Surface engineered *Amphora subtropica* frustules using chitosan as a drug delivery platform for anticancer therapy, *Materials Science & Engineering C* 94, 56-64. (Impact Factor: 5.080)
3. T.S. Sheena, P. Balaji, V. Rajiu, M.A. Akbarsha, **K. Jeganathan**, (2018), "Functional Evaluation of Doxorubicin Decorated Polymeric Liposomal Curcumin: A Surface Tailored Therapeutic Platform for Combination Chemotherapy", *New Journal of Chemistry*, 42, 16608-16619. (Impact Factor: 3.201)
4. P. Justin Jesuraj, R. Parameshwari, **K. Jeganathan**, Improved performance of graphene oxide based resistive memory devices through hydrogen plasma, *Materials Letters* 232, 62-65 (2018). (Impact Factor: 2.687)
5. P. Dharmaraj, G. Paulraj, V. Purushothaman, H. Jr-Hau , **K. Jeganathan** (2018), High performance, self-powered photodetectors based on graphene/silicon Schottky junction diode, *Journal of Materials Chemistry C* 6, 9545-9551. (Impact Factor: 5.976)
6. G. Paulraj, P. Dharmaraj, N. Anbarasan, S. Sadhasivam, P. Manivel, **K. Jeganathan**, (2018), "Promoter-free synthesis of monolayer MoS<sub>2</sub> by chemical vapour deposition, *Crystal Engineering Communication*", 20, 4249 - 4257. (Impact Factor: 3.304)
7. S. Mahalingam, P. Thomas, K. Venkadeswaran, **K. Jeganathan**, and P. Geraldine, (2017). "Synthesis and Characterization of Chrysin-Loaded  $\beta$ -Cyclodextrin-Based Nanosponges to Enhance In-Vitro Solubility, Photostability, Drug Release, Antioxidant Effects and Antitumorous Efficacy", *Journal of Nanoscience and Nanotechnology* 17,12, 8742-8751. (Impact Factor: 1.354)
8. K.A. Whitehead, M. Vaidya, C. Liauw, D. Brownson , R. Parameshwari, J. Kamieniak, , S. Rowley-Neale, L. Tetlow, J. Wilson-Nieuwenhuis, D. Brown, **K. Jeganathan** and A. McBain, (2017), "Antimicrobial activity of graphene oxide-metal hybrids", *International Biodeterioration & Biodegradation*, 123, 182-190. (Impact Factor: 3.562)
9. S. Gopalakrishnan, and **K. Jeganathan**, (2017), "Facile fabrication of silicon nanowires as photocathode for visible-light induced photoelectrochemical water splitting." *International Journal of Hydrogen Energy* 42, 36, 22671-22676, (Impact Factor: 4.229)

10. A. Nithiya, C.M. Singaravelu, **K. Jeganathan**, K. Jothivenkatachalam, (2017), "A potential photocatalytic, antimicrobial and anticancer activity of chitosan-copper nanocomposite. International Journal of Biological Macromolecules. 110, Part B, 1774-1782. (Impact Factor: 3.909)
11. M. Gopalakrishnan, S. Gopalakrishnan, G. M. Bhalerao, **K. Jeganathan**, (2017), "Multiband InGaN nanowires with enhanced visible photon absorption for efficient photoelectrochemical water splitting", Journal of Power Sources, 337, 130-136, (Impact Factor: 6.945)
12. S. Sadhasivam, P. Manivel, **K. Jeganathan**, C. K. Jayasankar, N. P. Rajesh, (2017), "Bright blue cooperative upconversion emission of Yb 3+ from langbeinite K<sub>2</sub>Ti<sub>1.887</sub>Yb<sub>0.113</sub>(PO<sub>4</sub>)<sub>3</sub> single crystal", Materials Letters, 188, 399-402. (Impact Factor: 2.687)
13. P. Justin Jesuraj, R. Parameshwari, K. Kanthasamy, J.Koch, H. Pfnür, **K. Jeganathan**, (2017), "Hole injection enhancement in organic light emitting devices using plasma treated graphene oxide", Applied Surface Science, 397, 144-15. (Impact Factor: 4.439)
14. R. Parameshwari, K.Jothivenkatachalam, C.E. Banks, **K. Jeganathan**, (2017), "Acid-free co-operative self-assembly of graphene-ZnO nanocomposites and its defect mediated visible light photocatalytic activities", Physica B: Condensed Matter, 506, 32-41. (Impact Factor: 1.453)
15. P. Dharmaraj, P. S. Venkatesh, P. Kumar, K. Asokan, **K. Jeganathan**, (2016), "Direct growth of few layer graphene on SiO<sub>2</sub> substrate by low energy carbon ion implantation", RSC Advances, 6(103), 101347-101352. (Impact Factor: 2.936)
16. Dharmaraj, P. J. Jesuraj, **K. Jeganathan**, (2016), Tuning a Schottky barrier of epitaxial graphene/4H-SiC (0001) by hydrogen intercalation, Appl. Phys. Lett. 108(5), 051605. (Impact Factor: 3.495)
17. P.J. Jesuraj, **K. Jeganathan**, M. Navaneethan, Y. Hayakawa, (2016), "Far-field and hole injection enhancement by noble metal nanoparticles in organic light emitting devices", Synthetic Metals, 211, 155-160. (Impact Factor: 2.526)
18. P. S. Venkatesh, V. Ramakrishnan, **K. Jeganathan**, (2015), "Raman silent modes in vertically aligned undoped ZnO nanorods", Physica B: Condensed Matter, 481, 204-208. (Impact Factor: 1.453)
19. A. Nithya, H.L. JeevaKumari, K. Rokesh, Ruckmani, **K. Jeganathan**, K. Jothivenkatachalam, (2015), "A versatile effect of chitosan-silver nanocomposite for surface plasmonic photocatalytic and antibacterial activity", Journal of Photochemistry and Photobiology B: Biology, 153, 412-422. (Impact Factor: 3.165)
20. V. Rajiu, P. Balaji, T. S. Sheena, M.A. Akbarsha, **K. Jeganathan**, (2015), "Doxorubicin-anchored curcumin nanoparticles for multimode cancer treatment against Human Liver Carcinoma Cells", Particle & Particle Systems Characterization, 32(11), 1028-1042. (Impact Factor: 4.384)

21. P. Arunkumar B. Raju, R. Vasantharaja , S. Vijayaraghavan , B. Preetham Kumar, **K. Jeganathan**, and K. Premkumar (2015), "Near infra-red laser mediated photothermal and antitumor efficacy of doxorubicin conjugated gold nanorods with reduced cardiotoxicity in swiss albino mice", *Nanomedicine: Nanotechnology, Biology and Medicine* 11(6), 1435-1444. (Impact Factor: 6.500)
22. P Sundara Venkatesh, P. Dharmaraj, V. Purushothaman, V. Ramakrishnan, and **K. Jeganathan** (2015), "Point defects assisted NH<sub>3</sub> gas sensing properties in ZnO nanostructure", *Sensors and Actuators B*, 212, 10–17. (Impact Factor: 5.667)
23. P. Justin Jesuraj and **K. Jeganathan** (2015), "Improved hole injection in organic light emitting devices by gold nanoparticles", *RSC Advances* 5, 684. (Impact Factor: 2.936)
24. P. Dharmaraj, **K. Jeganathan**, S. Parthiban, J.Y. Kwon, S. Gautam, K.H. Chae and K. Asokan (2014), "Selective area growth of Bernal bilayer epitaxial graphene on 4H-SiC (0001) substrate by electron-beam irradiation", *Appl. Phys. Lett.* 105, 181601. (Impact Factor: 3.945)