

Dr. P. KOTESWARA RAO

Title	Dr.	First Name	Koteswara Rao	Last Name	Peta	
Designation	Assistant Professor					
Address	Department of Electronic Science University of Delhi, South Campus New Delhi – 110 021					
Phone No Office	+91-11-24110440					
Residence Mobile	+917838971276					
E-mail	kras@south.du.ac.in; drkoti2010@gmail.com					
Web-Page	https://scholar.google.com/citations?user=nrhN4N8AAAJ&hl=en					
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		University of Mysore			2010	
M.Sc. (Physics)		Sri Venkateswara University			2005	
B.Sc. (Computer Science)		Sri Venkateswara University			2003	
Any other qualification		-----			-----	
Carrier Profile						
Organization		Designation		Duration		Role
Dept. of Electronic Science, UDSC, INDIA		Assistant Professor		May/2013 –till date		Teaching & Research
Faculty of Science and Technology, IFHE, INDIA		Assistant Professor		January/2013 – May/2013		Teaching & Research
Department of Physics. CNU, South Korea		Post-Doctoral Fellow		September/2010 – September/2012		Research
Department of Physics. TRR College of engineering & Technology, JNTU, INDIA		Assistant Professor		July/2009 – September/2010		Teaching & Research
Administrative Assignments						
<ul style="list-style-type: none"> ➤ Warden: Aravali Post Graduate Men’s Hostel, University of Delhi South Campus w. e. f December/2019 ➤ Member - Board of Research Studies, Faculty of Inter-disciplinary & Applied Sciences, University of Delhi South Campus. (October/2015 - October2017) (December/2019 - Present) ➤ Member - Purchase Committee – University of Delhi South Campus Library (2018 - 2019) ➤ Member - Departmental Research Committee – Department of Electronic Science 						

- **Member** - Departmental time table committee (2013 - 2017)
- **Member** - purchase committee (UGC XII plan for departmental activities) (2015-2017)
- **Coordinator** - M. Sc admissions for the academic years 2015-2016, 2017-2018. 2019-2020.
- **Member** - UG Committee for LOCF syllabus in Electronic Science
- **Coordinator** - UG programme under LOCF in Electronic Science

Area of Interest / Specialization

- Development of Schottky and Ohmic contacts to wide band semiconductor materials for electronic and optoelectronic device applications.
- Investigations of deep level defects semiconductor materials and devices using DLTS technique.
- Analysis of electrical and optical properties of light emitting diodes (LEDs).
- Analysis of reverse and forward current transport mechanisms in metal/semiconductor and LED structures in a wide temperature range.
- Development and Characterization of Hydride structured Solar Cells
- Development and Characterization of ZnO nanorods for Opto-electronic device applications.
- Development and Characterization composite/nano structured materials and devices for gas and chemical sensing applications.

Subjects Taught

Theory Courses:

M. Sc. (Electronic)

- Engineering Mathematics
- Semiconductor Devices and Materials
- Electromagnetics, Antenna and wave propagation
- Analog, Circuit Design (Sharing with Dr. Harsupreet Kaur)

M. Tech. (Microwave Electronics)

- Microwave Devices

Laboratory for M. Sc.

- Computational Techniques
- Electronic Materials and Semiconductor Devices
- Science and Technology of Semiconductor Devices
- Guiding M. Sc, M. Tech Projects

Ph. D. (Electronis Science)

- **Coordinator** - Ph. D course work
Paper : ES-2 (Fabrication, Characterization Techniques for Electronic Materials)

Research Guidance		
List against each head (If applicable)		
1.	Supervision of awarded Doctoral Thesis	- 03
S. No.	Student Name	Title of the Thesis
01.	Mr. Varun Singh Nirwal 2019	Fabrication and Characterization of Schottky Metal Contacts to Undoped GaN
02.	Mr. Joginder Singh 2019	Studies on Role of Graphene in Improving the Performance of Organic Photovoltaic Devices (Co-supervisor: Prof. P. K. Bhatnagar)
03.	Mrs. Khyati Gautam 2019	Application of Graphene in ZnO Based Optoelectronic Devices (Co-supervisor: Prof. P. K. Bhatnagar)
2.	Thesis submitted for award of Doctoral Degree	- NIL
3.	Supervision of Doctoral Thesis, Under progress	- 01
4.	Supervision of awarded M. Phil Dissertations	- NIL
5.	Supervision of M. Phil dissertations, under progress	- NIL
Publication Profile		
List against each head (if applicable)		
1. Books/Monographs (Authored/Edited)		
2. Research papers published in Refereed/Peer Reviewed Journals		
1)	Park B. –G, Maddaka, R, Nguyen, T. K. P, Peta, K. R. , Noh, Y. –K., Oh, J. –E., Kim, M. –D. (2019), Effects of reduced internal electric field in InGaN/pseudo-AllnGaN multi-quantum-well on forward leakage current and photocurrent properties. <i>Journal of Applied Physics</i> , 126(4), 0457031. IF:2.328	
2)	S. Ramu, T Chandrakalavathi, G. Murali, K. Sunil Kumar, A. Sudharani, M. Ramanadha, Peta, K. R. , R Jeyalakshmi and R. P. Vijayalakshmi. (2019), UV enhanced NO gas sensing properties of the MoS ₂ monolayer gas sensor. <i>Materials Research Express</i> , 6(8), IF:1.449	
3)	Singh, J., Presad, N., Peta, K. R. , Bhatnagar, P. K. (2018), Suppression of trap assisted non-geminate recombination by incorporation of multilayer graphene in P3HT:PCBM for stable and efficient photovoltaic device. <i>Journal of Materials Science: Materials in Electronics</i> , 19, 18200-18208. IF:2.324	
4)	Gautam, K., Singh, I., Bhatnagar, P. K., & Peta, K. R. (2018). Single Mode Waveguiding Effect ZnO Nanorods to Enhance the Luminance of Conjugated Polymer based Light Emitting Diodes. <i>Journal of Luminescence</i> , 204, 59-63. IF:2.961	
5)	Maddaka Reddeppa, Byung-Guon Park, Moon-Deock Kim, Peta, K. R. , Nguyen Duc Chinh, Dojin Kim, Song-Gang Kim, G. Murali (2018) “H ₂ , H ₂ S gas sensing properties of rGO/GaN nanorods at room temperture: Effect of UV illumination” <i>Sensors and Actuators B</i> 264, 353-362. IF:6.393	

- 6) Chandrakalavathi T, **Peta, K. R.**, and R Jeyalakshmi (2018) "Enhanced UV photoresponse with Au nanoparticles incorporated rGO/Si heterostructure" **Materials Research Express** 5, 025011. **IF:1.449**
- 7) **Peta, K. R.** and Moon Deock Kim, (2018) "Leakage Current Transport Mechanism under Reverse Bias in Au/Ni/GaN Schottky Barrier Diode" **Superlattices and Microstructures** 113, 678-683. **IF:2.385**
- 8) R. Kumari, F. Singh, B. S. Yadav, R. K. Kotnala, **Peta, K. R.**, P. K. Tyagi, S. Kumar and N. K. Puri, (2017), "Ion irradiation-induced, localized sp² to sp³ hybridized carbon transformation in walls of multiwalled carbon nanotubes" **Nuclear Inst. And Methods in Physics Research, B** 412, 115-122. **IF:1.323**
- 9) Joginder Singh, Neetu Prasad, **Peta, K. R.** and P. K. Bhatnagar (2017), "The role of multilayer graphene in improved electrical and optical characteristics of P3HT based photovoltaic device" **Material Research Express** 4, 085101. **IF:1.449**
- 10) Varun Singh Nirwal, **Peta, K. R.**, V. Rajagopal Reddy , Moon Deock Kim (2017) "Influence of rapid thermal annealing on electrical and structural properties of Pd/Au Schottky contact to Ga-polarity GaN grown on Si (111) substrate. **Journal of Alloys and Compound** 705, 782-787. **IF:4.175**
- 11) Varun Singh Nirwal and **Peta, K. R.** (2016) "Behavior of temperature dependent electrical properties of Pd/AuSchottky contact to GaN grown on Si substrate by MBE" **Material Research Express** 3, 125901. **IF:1.449**
- 12) Khyati Gautam, Inderpreet Singh, P.K. Bhatnagar, **Peta, K. R.**, (2016) " Role of Cl doping on the growth and relaxation dynamics of ZnO nanorods synthesis by hydrothermal method" **Chemical Physics Letters** 662, 196-200. **IF:1.901**
- 13) Khyati Gautam, Inderpreet Singh, P.K. Bhatnagar, **Peta, K. R.**, "The effect of growth temperature of seed layer on the structural and optical properties of ZnO nanorods", **Superlattices and Microstructures** 93 (2016) 101. **IF:2.385**
- 14) Amandeep Kaur, Inderpreet Singh, Amit Kumar, **Peta, K. R.**, Pramod Kumar Bhatnagar, "Effect of physicochemical properties of analyte on the selectivity of polymethylmethacrylate: Carbon nanotube based composite sensor for detection of volatile organic compounds" **Materials Science in Semiconductor Processing**, 41 (2016) 26. **IF:2.772**
- 15) Anita Kumari, Inderpreet Singh, , Neetu Prasad, Shiv Kumar Dixit, **Peta, K. R.**, Parmatma Chandra Mathur, Pramod Kumar Bhatnagar, Charanjit Singh Bhatia and Swati Nagpal "Improving the efficiency of a poly(3-hexylthiophene) CuInS₂ photovoltaic device by incorporating graphenenanopowder", **Journal of Nanophotonics**, Vol. 8 (2014) 083092. **IF:0.81**
- 16) **Peta, K. R.**, Sang Tae Lee, Moon-Deock, Kim, Jae-Eung Oh, Song-Gang Kim and Tae-Geun Kim, "Deep level defects in Ga- and N- polarity GaN grown by molecular beam epitaxy on Si(111)", **Journal of Crystal Growth**, 378 (2013) 299-302. **IF:1.573**

- 17) Peta, K. R., Byung-Guon Park, Sang-Tae Lee, Moon-Deock, Kim, Jae-Eung Oh, Tae-Geun Kim and V. Rajagopal Reddy. *Analysis of electrical properties and deep level defects in undoped GaN Schottky barrier diode*, **Thin Solid Films**, 534 (2013) 603-608. **IF:1.888**.
- 18) Peta, K. R., Byungguon Park, Sang-Tae Lee, Moon-Deock, Kim and Jae-Eung Oh, *Temperature-dependent electrical properties of (Pt/Au)/Ga-polarity GaN/Si (111) Schottky diode*, **Microelectronic Engineering**, 93 (2012) 100-104. **IF:1.652**
- 19) P. Koteswara Rao, Byung-guon Park, Sang-Tae Lee, Young-Kyun Noh, Moon-Deock, Kim and Jae-Eung Oh, *Analysis of leakage current mechanisms in Pt/Au Schottky contact on Ga-polarity GaN by Frenkel-Poole emission and deep level studies*, **Journal of Applied Physics**, 110, (2011) 013716. **IF:2.328**
- 20) V. Rajagopal Reddy, M. Siva Pratap Reddy and P. Koteswara Rao, *Effect of rapid thermal annealing on deep level defects in the Si-doped GaN*, **Microelectronic Engineering**, Vol. 87, (2010) 117-121. **IF:1.652**
- 21) V. Rajagopal Reddy, M. Ravinandan, P. Koteswara Rao and Chel-Jong Choi, *Effect of thermal annealing on electrical and structural properties of Pt/Mo Schottky contact on n-type GaN*, **Journal of Materials Science: Materials in Electronic**, Vol. 20, (2009) 1018-1025. **IF:2.324**
- 22) M. Ravinandan, P. Koteswara Rao and V. Rajagopal Reddy, *Analysis of current-voltage characteristics of Pd/Au Schottky structure on n-type GaN in wide temperature range*, **Semiconductor Science and Technology**, Vol.24, (2009) 035004. **IF:2.654**
- 23) P. Koteswara Rao and V. Rajagopal Reddy, *Effect of annealing temperature on electrical and structural properties of transparent indium-tin-oxide electrode to n-type GaN*, **Materials Chemistry and Physics**, Vol. 45 (2009) 22-32. **IF:2.781**
- 24) M. Ravinandan, P. Koteswara Rao and V. Rajagopal Reddy *Temperature dependent of current-voltage (I-V) characteristics of Pt/Au Schottky contact on n-type GaN*, **Journal of Optoelectronics and Advanced Materials**, Vol. 10 (2008) 2787-2792. **IF:0.390**
- 25) V. Rajagopal Reddy, M. Ravinandan, P. Koteswara Rao and Chel-Jong Choi *Electrical and structural properties of rapidly annealed Pd/Mo Schottky contacts on n-type GaN* **Semiconductor Science and Technology**, Vol.23 (2008) 095026. **IF:2.654**
- 26) P. Koteswara Rao and V. Rajagopal Reddy *Temperature-dependent electrical properties of Au Schottky contact and deep level defects in n-type GaN*, **Optoelectronics and Advanced Materials-Rapid Communication**, Vol.2 (2008) 410-414. **IF:0.390**
- 27) V. Rajagopal Reddy and P. Koteswara Rao; *Annealing temperature effect on electrical and structural properties of Cu/Au Schottky contacts to n-type GaN*, **Microelectronic Engineering**, Vol. 85 (2008) 470-476. **IF:1.652**
- 28) V. Rajagopal Reddy, P. Koteswara Rao and C. K. Ramesh: *Annealing effects on structural and electrical properties of Ru/Au on n-GaN Schottky contacts*, **Materials Science & Engineering B**, Vol.137 (2007)200-204. **IF:3.507**

3. Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals
4. Research papers published in Refereed/Peer Reviewed Conferences
- 1) Joginder Singh, Varun Singh Nirwal, PK Bhatnagar, **Koteswara Rao Peta**, Effect of incorporation of silver nanoparticles in PEDOT: PSS layer on performance of organic solar cell AIP Conference Proceedings **1953**, (2018) 030251.
- 2) Khyati Gautam, Inderpreet Singh, PK Bhatnagar, **Koteswara Rao Peta**, “Controlling the Morphology of ZnO Nanostructures During Growth Process”, Recent Trends in Materials and Devices, Springer Proceedings in Physics **178** (2017) 125-129.
- 3) Joginder Singh, Neetu Prasad, Varun Singh Nirwal, Khyati Gautam, **Koteswara Rao Peta** and P. K. Bhatnagar “Optical absorption and emission characterization of P3HT: graphene composite for its prospective photovoltaic application” AIP Conference Proceedings **1731**, (2016) 050129.
- 4) Varun Singh Nirwal, Joginder Singh, Khyati Gautam, and **Koteswara Rao Peta** “Electrical and structural properties of (Pd/Au) Schottky contact to as grown and rapid thermally annealed GaN grown by MBE” AIP Conference Proceedings **1728**, (2016) 020222.
- 5) Khyati Gautam, Inderpreet Singh, Varun Singh Nirwal, Joginder Singh, **Koteswara Rao Peta**, and P. K. Bhatnagar “Effect of lattice strain on structural and optical properties of ZnO nanorods grown by hydrothermal method” AIP Conference Proceedings **1728**, (2016) 020511.
5. Other Publications (Edited works, Book reviews, Festschrift volumes, etc)

Conference Organization/Presentations (in the last three years)

List against each head (If applicable)

Organization of a Conference – NIL

INVITED TALKS

- 1) Koteswara Rao Peta “Probing of Deep Level Defects in III-Nitride Semiconductor Materials using DLTS Technique” **NCNMAT-2017, 16-17 September 2017**, Sri Venkateswara University, Tirupati, INDIA.

Participation as Oral/Poster Presenter

- 1) Singh, J., Nirwal, V., S., Prasad, N., Peta, K., R., and Bhatnagar, P., K., “Improvement in Dark Electrical Parameters of P3HT:PCBM Composite by Incorporation of Multilayer Graphene for Its Photovoltaic Applications” **IUMRS-ICEM 2018**, August 19 – 24, DCC, Daejeon, South Korea.
- 2) Khyati Gautam, Inderpreet Singh, P.K. Bhatnagar, Koteswara Rao Peta, “Growth Challenges for ZnO Nanorods in Hydrothermal Method and their Applications in Optoelectronics” **IUMRS-ICEM 2018**, August 19 – 24, DCC, Daejeon, South Korea.

- 3) Khyati Gautam , Inderpreet Singh, Chhavi Bhatnagar, P.K. Bhatnagar, Koteswara Rao Peta, "Enhanced UV Emission of Reduced Graphene Oxide Capped ZnO Nanorods by Surface Plasmon Resonance" **ICMAT-2017, July 18th to 23rd**, SUNTEC CITY, SINGAPORE, SINGAPORE
- 4) Singh Nirwal and **Koteswara Rao Peta*** "Reverse Leakage Transport Mechanism in GaN Schottky Diode" IUMRS-ICYRAM 2016, 11th to 15th December 2016. IISc, Bangalore.
- 5) Khyati Gautam , Inderpreet Singh, Kriti Jetley, P.K. Bhatnagar, **Koteswara Rao Peta**, "Structural and Optical Characterization of Boron Doped ZnO Nanorods Grown by Hydrothermal Method" **ICANN-2016, November 4 & 5, 2016 New Delhi, India**
- 6) **Koteswara Rao Peta**; "*GaN Schottky Diode: Deep Level Defects and Reverse Leakage Current Transport Mechanism*", **ICMAT 2015 & IUMRS-ICA 2015, 28 June – 3 July 2015; Suntec Singapore.**
- 7) Varun Singh Nirwal, **Koteswara Rao Peta**, Khyati Gautam, Joginder Singh; "*Electrical and Structural Properties of Pd/Au Schottky Contact on Rapid Thermal Annealed N-Polarity GaN Grown by MBE*", **ICMAT 2015 & IUMRS-ICA 2015, 28 June – 3 July 2015; Suntec Singapore.**
- 8) Khyati Gautam, **P. Koteswara Rao**, P. K. Bhatnagar, Inderpreet Singh, R. K. Garg; "*Nano-Structured Materials: Influence of Substrate on Structural Properties of ZnO Nanorods Grown by Hydrothermal Method*", **National Conference on Materials Science (NCMS-2014), October 17-18, 2014, Mewar University, Chittorgarh, Rajasthan**
- 9) **P. Koteswara Rao**; "*Deep Level Defects in InGaN/GaN Double Quantum Well blue light emitting diode*", **International Conference on Optics & Optoelectronics (XXXVII Symposium of Optical Society of India) 05-08 March 2014, Dehradun, Uttarakhand, India.**
- 10) **P. Koteswara Rao** and Moon-Deock Kim; "*Analysis of Forward Leakage Current of Multiquantum Well InGaN-Blue Light Emitting Diode with Different Barriers*", **2nd International Conference on Advanced Functional Materials (ICAFM-2014), February 19-21, 2014, Thiruvananthapuram, Kerala, India.**
- 11) **Koteswara Rao Peta**, Byung-Guon Park, Yong-Deog Kim, Moon-Deock, Kim, Jae-Eung Oh, Song-Gang Kim and Tae-Geun Kim; "*Deep level defects in Ga- and N- polarity GaN grown by molecular beam epitaxy on Si(111)*". **The 17th International Conference on Molecular Beam Epitaxy, 2012/September 23-28, 2012, Nara-JAPAN**
- 12) **Koteswara Rao Peta**, Sang-Tae Lee, Seung-jeon Ki, Hyo-Seock Choi, Moon-Deock, Kim, and Song-Gang Kim; "*Effect of barrier layer on forward leakage current in InGaN/GaN light emitting diode structure*", **6th LED and solid state lighting conference 2012/August 29~30, Seoul-SOUTH KOREA**
- 13) **P. Koteswara Rao**, Byung Guon Park, Sang Tae Lee, Moon-Deock, Kim, JaeEung Oh and Song-Gang Kim; "*Deep level defects in InGaN/GaN blue light emitting diode*", **The 19th Korean Conference on Semiconductors, "Semiconductor for Smart Living Technologies" 2012/February 7~9, Seoul-SOUTH KOREA**

- 14) Sang-Tae Lee, Byung-Guon Park, **P. Koteswara Rao**, Moon-Deock, Kim, Jae-Eung Oh and Song-Gang Kim; *"Growth and optical properties of InN quantum-dots in In_xGa_{1-x} barrier by molecular beam epitaxy"*, **The 7th International Conference on Advanced Materials and Devices (ICAMD-2011), December 7~9, Jeju-SOUTH KOREA**

- 15) Byung-Guon Park, Sang-Tae Lee, Young-Kyun Noh, **P. Koteswara Rao**, Moon-Deock, Kim, Jae-Eung Oh and Song-Gang Kim; *"Carrier tunneling in asymmetric coupled double InGaN/GaN quantum well with variation of barrier thickness"*, **The 7th International Conference on Advanced Materials and Devices (ICAMD-2011), December 7~9, Jeju-SOUTH KOREA**

- 16) **P. Koteswara Rao**, Young-Kyun Noh, Hyo-Seock Choi, Moon-Deock, Kim, Jae-Eung Oh and Song-Gang Kim; *"Temperature-dependent photoluminescence and carrier dynamics of strained InGaN/GaN multi quantum wells"*, **The 15th International Symposium on Physics of Semiconductors and Applications, (ISPSA) July 05-08 (2011) Jeju-SOUTH KOREA**

- 17) ByungGuon Park, **P. Koteswara Rao**, Young Kyun Noh, Moon Deock Kim, Jae Eung Oh, Song-Gang Kim; *"Effect of external electric field on deep level defects in strained $In_{0.17}Ga_{0.83}N/GaN$ multi quantum well blue LED"*, **The 15th International Symposium on Physics of Semiconductors and Applications, (ISPSA) July 05-08 (2011) Jeju-SOUTH KOREA.**

- 18) **P. Koteswara Rao**, Byungguon Park, Sang-Tae Lee, Moon-Deock, Kim, Jae-Eung Oh and Song-Gang Kim; *"Influence of crystal polarity on temperature dependent electrical properties of Au/Pt/GaN Schottky diodes"* **Spring Conference (Korean Physical Society) April 13-15 (2011) Deajeon-SOUTH KORE**

- 19) M. Ravinandan, **P. Koteswara Rao** and V. Rajagopal Reddy; *"Temperature dependent electrical properties of Pd/Au Schottky contact on n-type GaN"*, **National conference on Emerging Materials, Devices and Technologies, Feb. 24-25 (2009), Tirupati**

- 20) I. Jyothi, M. Siva Pratap Reddy, **P. Koteswara Rao** and V. Rajagopal Reddy; *"Annealing effects on electrical properties of Ni/Mo Schottky contacts to n-type GaN"*, **National conference on Emerging Materials, Devices and Technologies, Feb. 24-25 (2009), Tirupati.**

- 21) **P. Koteswara Rao** and V. Rajagopal Reddy; *"Effects of annealing temperature on barrier parameters of ITO/n-GaN Schottky diode"*, **Solid State Physics Symposium, Dec. 16-20 (2008), BARC, DAE, Mumbai.**

- 22) **P. Koteswara Rao**, M. Ravinandan, V. Rajagopal Reddy and C. K. Ramesha; *"Current-voltage characteristics of Pd/Au/n-GaN Schottky diode in wide temperature range"*, **National Conference on Semiconductor Materials & Technology, Oct. 16-18 (2008), Haridwar.**

- 23) N. Ramesha Reddy, **P. Koteswara Rao** and V. Rajagopal Reddy; *"Electrical and Structural Properties of Rh/Au Schottky contacts on n-type GaN"*, **National Conference on Advanced Materials Devices and Technologies, Feb.20-22(2008), Tirupati.**

- 24) M. Ravinandan, **P. Koteswara Rao** and V. Rajagopal Reddy; *"Characterization of Pt/Au/n-GaN Schottky interfaces based on I-V-T characteristics"*, **National Conference on Advanced**

Materials Devices and Technologies, Feb.20-22(2008), Tirupati.

- 25) C. K. Ramesha, M. Ravinandan, **P. Koteswara Rao** and V. Rajagopal Reddy; *“Annealing effect on structural and electrical properties of Cu/Au/n-GaN Schottky diode”*, **National Conference on Advanced Materials Devices and Technologies, Feb.20-22(2008), Tirupati.**
- 26) **P. Koteswara Rao** and V. Rajagopal Reddy; *“Thermal annealing temperature effects on Schottky barrier parameters of ITO/n-GaN diode”*, **National Conference on Smart Materials and Recent Technologies, February 22-23, (2007) Tirupati.**
- 27) **P. Koteswara Rao**, C. K. Ramesha, N. Ramesha Reddy and V. Rajagopal Reddy; *“Electrical characteristics of Cu/Au Schottky contacts on n-type GaN”*, **2nd National Conference on Condensed Matter and Materials Physics, February 1-3 (2007), University of Rajasthan, Jaipur.**
- 28) C. K. Ramesha, **P. Koteswara Rao** and V. Rajagopal Reddy; *“Schottky barrier parameters of Ruthenium contacts to n-type GaN”*, **Solid State Physics Symposium, Dec. 26-30 (2006), Barkatullah University, Bhopal.**

Research Projects (Major Grants/Research Collaboration)

1. **University of Delhi R & D Project:** Grant No.: RC/2015/9677; 15th October, 2015 *“Studies on Graphene – polymer composite Based Solar Cells”*
2. **University of Delhi R & D Project:** Grant No.: RC/2014/6820; 15th October, 2014 *“Electrical Characterization of Schottky contacts to GaN grown on Si substrate by molecular Beam Epitaxy (MBE)”*
3. **University of Delhi R & D Project:** Under scheme to strengthen R&D Doctoral Research Programme by providing funds to University Faculty.
“Analysis of Forward Leakage Current Components in InGaN based blue Light Emitting Diodes”

Awards and Distinctions

**Post-Doctoral Fellowship (BK21, South Korea)
Sept/2010-Sept/2012**

Association With Professional Bodies

1. *Editing*
2. *Reviewing*
 - **Nanotechnology**
 - **Journal of Physics D: Applied Physics**
 - **Super lattices and microstructures.**

- **Journal of alloys and compounds**
 - **Material Research Express**
 - **Journal of Electronic Materials**
3. *Advisor*
4. *Committees and Boards*
5. *Memberships*
- **Life Member** – Korean Physical Society
 - **Life Member** – Material Research Society of India
 - **Life Member** – Semiconductor Society India
 - **Member** – Material Research Society of Singapore (2015-2016)

Additional Activities

Academic visits/conferences attended outside India

- Daejeon Convention Centre, Daejeon, South Korea **2018** (to present research papers at IUMRS-ICEM).
- Suntec City, Singapore, **2015** (to present research papers at ICMAT-IUMARS)
- University of Minho, Guimaraes, Portugal – **2013**
- Chungnam National University, Daejeon, South Korea, **Sep/2010 - Sep/2012** (post-doctoral fellow)

Scopus h-index : 12

Google Scholar h-index : 12, i-10 index: 13

