

Physics Department Profile

The department of physics was established in the year 1997 along with the institute, and the physics department is used to follow the syllabus prescribed by JNTUH. In the year 2011, JNTUH sanctioned the autonomous status to the institute. Then the physics syllabus is modified to suit the changing needs of engineering curriculum. At present the faculty of physics is teaching two theory courses and one lab course. The Department has well- equipped laboratories and the experiments in engineering physics lab course are completely changed and entirely a new set of experiments that are relevant to the modified physics syllabus are introduced. Thus coherence between theory course and lab course is obtained.

The Department has requisite number of faculty members, striving to incorporate excellence in theory, practice and research. At present the department has strength of 12 teaching staff (3 professors, 2 Associate professors and 7 assistant professors) and one supporting staff. The department conducting conferences, workshops and FDPs for the benefit of students as well as faculty members to understand the latest trends. The faculty members are actively involved in research and more than 50 papers are published in Journals and conferences.

The physics Department is committed to achieve the following goals to serve the students.

1. Quality Instruction: To assure consistently high-quality instruction in all modes of delivery.
2. Student Success: To work collaboratively with other areas of the colleges to encourage students to achieve their educational goals and succeed in work and/or continued education.
3. Technology: To employ appropriate technologies effectively to enhance instruction and student learning.
4. Professional Development: To foster continuing education and professional development for faculty and staff.

ARSHIA FATHIMA

Areas of Interest: Luminescence, Nano Technology

Education

- M.Sc, (Physics) Acharya Nagarjuna University.
- B Ed, Acharya Nagarjuna University.
- B.Sc,(MPC) Acharya Nagarjuna University.

Publications

1. Arshia Fathima, "A Review on synthesis of ZnO Particles" , Proceedings of the Second 2nd National conference on Materials for Specific Applications,ISBN 978-81-928677-2-4,PP 117-119,January 2018.
2. Arshia Fathima, "Ce⁴⁺ and Eu³⁺doped LAG phosphor synthesis and thermoluminescence Study" , Proceedings of the international seminar on physics and chemistry of materials and Applications,ISBN 978-93-82570-84-4,PP 98-99,January 2017.
3. Arhia Fathima, "Photoluminescence studies of Tb³⁺ doped Al₂Sr₂La₂O₈:Eu Phosphor", Proceedings of the National conference on Materials for Specific Applications.ISBN 978-81-929088-4-7,PP 112-115,March 2016.

B SHANTI SREE

Areas of Interest: Green synthesis, Nanotechnology.

Education

- Ph.D.(Pursuing),JNTUH
- MSc(Physics),Jawaharlal Nehru Technological University -Hyderabad
- B.Sc. (MPC), Osmania University, Hyderabad

Selected Publications

1. B Shanti sree“Review on green synthesis of nanoparticles from plant extract” proceedings of the National Conference on “Materials For Specific Applications-2” ISBN: 978-81-928677-2-4, pp. 68-73,January 2018.

Patrick, G

Areas of Interest: Material science, Physics in medicines

Education

- Ph.D., Osmania University, Hyderabad
- M. Sc. Osmania University, Hyderabad
- B. Sc. Osmania University, Hyderabad

Selected Publications

1. G Patrick and Adeel Ahmad (2018), Mechanical properties of some composite materials, International Journal of Science, Environment and Technology, 7(2), 429 – 434.
2. G Patrick et. al (2018), Studies on conversion of Thermal energy in to Electrical energy using ferromagnetic cobalt as core material, proceedings- National conference MSA, 120-124.
3. G Patrick and Adeel Ahmad (2016), Thermo-Electric properties of some composite materials, proceedings- National conference MSA, 109-111.

K. Vagdev

Areas of Interest: Condensed matter physics, solar cells, water purification

Education

- Ph.D., Jawaharlal Nehru Technological University, Anantapur
- M.Tech, Sri Venkateswara University, Tirupathi
- M.Sc, , Sri Venkateswara University, Tirupathi

R & D Projects

1. FIST project, DST

Selected Publications

1. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao, Study of recent trends in graphene based electrode materials for solar cells as energy storage devices and sensor applications(2018) University college of science, saifabad, Hyderabad
2. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao, Study of recent trends in graphene based electrode materials for solar cells as energy storage devices and sensor applications(2018) University college of science, saifabad, Hyderabad
3. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao, Properties of two-dimensional silicon di oxide adsorbed on graphene substrate films for solar cells(2018), GRIET, Hyderabad
4. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao ,Density Functional Calculations of metals adsorbed on Graphene: A search for high performance Graphene based devices(2017), Vasavi College of Engineering, Hyderabad
5. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao, First Principle study of Tunable band gap in Bilayer Graphene (BLG)" (2017),Materials Today: Proceedings 4 (2017) 7586–7591
6. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao, study on interaction between Bilayer Graphene and SiO₂ surface using DFT Calculations (2016), GRIET, Hyderabad
7. **K.Vagdevi**, V.Radhika Devi, Negative Differential Conductance in Graphene Layer adsorbed with Beryllium(2015), Materials Today: Proceedings,2015(3758-3761)
8. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao ,First Principles Study of Interactions of Graphene Layer Adsorbed with Beryllium(2015), International Journal of Advanced Research in Physical Sciences
9. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao ,Study of Structural, Electronic and optical properties of pure graphene and graphene adsorbed with beryllium atoms from DFT calculations (2015) International Journal of Atoms and Molecules
10. **K.Vagdevi** ,Photo Degradation of Methylene Blue in Water: using Al₂O₃ Nanoparticles(2015), JNTU, Hyderabad
11. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao ,Study of Negative Differential Conductance in Graphene Layer Adsorbed with SnCl₄ by using DFT Calculations(2015), , Vasavi College of Engineering, Hyderabad
12. **K.Vagdevi**, V.Radhika Devi, K.Venkateswara Rao ,DFT Calculations of SnCl₄ Adsorption on Graphene(2014) Vasavi College of Engineering, Hyderabad
13. **K.Vagdevi**, R.D.S.S.S.S Venkateswara Raju, Analysis of Polarised modes in Silica Fibers(2013),) Vasavi College of Engineering, Hyderabad
14. **K.Vagdevi**, R.D.S.S.S.S Venkateswara Raju, K.Venkateswara Rao, Glass Embedded Nano Particles, (2013), JNTU Hyderabad.

Areas of Interest: Nanotechnology and thin films and Luminescence

Education

- M.Sc.(Physics), Sri Padmavathi Mahila Viswa Vidyayalam, Tirupathi
- B.Ed., Osmania University, Hyderabad
- B.Sc. (MPCs), Sri Venkateswara University, Tirupathi

Selected Publications

1. G Kalpana, "A Review on synthesis of ZnO Particles" , Proceedings of the Second 2nd National conference on Materials for Specific Applications,ISBN 978-81-928677-2-4,PP 117-119,January 2018.
2. G Kalpana, "Ce⁴⁺ and Eu³⁺doped LAG phosphor synthesis and thermoluminescence Study" , Proceedings of the international seminar on physics and chemistry of materials and Applications,ISBN 978-93-82570-84-4,PP 98-99,January 2017.
3. G Kalpana, "Photoluminescence studies of Tb³⁺ doped Al₂Sr₂La₂O₈:Eu Phosphor", Proceedings of the National conference on Materials for Specific Applications.ISBN 978-81-929088-4-7,PP 112-115,March 2016.

J.KISHORE BABU

Areas of Interest: Luminescence, Crystal growth

Education

- Pursuing Ph.D., Acharya Nagarjuna University Guntur
- M.Sc.(Condensed Matter Physics), Acharya Nagarjuna University Guntur

Selected Publications

1. **J.Kishore Babu**, B.Subbarao M.sridhar,K.Suresh,A.S.Sai Prasad, ,K.V.R Murthy “Photo Luminescence Study of Eu doped K₂BaPO₄ Phosphor” Proceedings of the national conference on“Materials for specific Applications” ISBN:978-81-928677-2-4,pp.31-33, January 2018.
2. Sridhar Mandava, Subrahmanyam Ramachandrula, Aparna Yarramareddy and **J.Kishore Babu**, “Studies on Conversion of Thermal Energy in to Electrical Energy using Ferromagnetic Nickel as Core Material”, International Journal of Engineering Research, Volume 6, Issue No: 6, ISSN: 2319-6890, PP: 322-325.June 2017.
3. **J.Kishore Babu**,M.sridhar,A.S.Sai Prasad,B.Subbarao,K.V.R Murthy “Photo Luminescence Studies of Eu doped CaAl₂O₄ Phosphor” Proceedings of the national conference on“Materials for specific Applications” ISBN:978-81-929088-4-7,pp.115-118, March 2016.
4. Sridhar Mandava, Subrahmanyam Ramachandrula, Aparna Yarramareddy and **J Kishore Babu** “Heating Effects of Nickel on the Induced EMF and Effective Resistance of Secondary coil”, , First National Conference on Materials For Specific Applications, GRIET, Hyderabad, ISBN: 978-81-929088-4-7. PP: 123-125 March 2016.
5. **J.Kishore Babu**,M.sridhar,A.S.Sai Prasad,B.Subbarao,K.V.R Murthy “Luminescence Studies Of BaY₂O₄:EU Phosphor” Proceedings of the national conference on “National conference On Applied Physics and Material Science” , ISBN:978-93-82570-64-6,pp117-120, August,2015
6. A.S.Sai Prasad, **J.Kishore Babu**, ,V.Ravi Kumar, M.Ramalingeswara Rao,,K.V.R Murthy “Thermo Luminescence Studies Of β -irradiated BaMgAl₁₀O₁₇:EU Phosphor” Proceedings of the national conference on “National conference On Applied Physics and Material Science” , ISBN:978-93-82570-64-6,pp160--162,August,2015
7. Sk.Erfan, V.Ravi Kumar,K.Suresh, B.Subbarao,**J.Kishore Babu**, K.V.R Murthy “Luminescence Studies Of Eu Doped AY₂O₄ (A=Ca,Ba) Phosphor” “International Journal Of Luminescence and Applications vol.5 ,no.2,JUNE2015, ISSN:2277-6362,pp 261-263, june,2015

M Krishna

Areas of Interest: Material science and thin films

Education

- M.Sc.(Physics), Osmania University, Hyderabad
- B.Ed., Osmania University, Hyderabad
- B.Sc. (MPC), Kakatiya University, Karimnagar

Selected Publications

1. M Krishna, "Synthesis and structural characterization of a promising Multiferrioc (BiFeO₃) material for Photovoltaic application" proceedings of the National Conference on "Materials For Specific Applications" ISBN: 978-81-928677-2-4, pp. 48-49, January 2018.

2. M Krishna, "Review on synthesis of ZnO nanoparticles" proceedings of the National Conference on "Materials For Specific Applications" ISBN: 978-81-928677-2-4, pp. 117-119, January 2018.

Sridhar Mandava

Areas of Interest: Solid State Physics, Electricity and Magnetism

Education

- Ph.D., Pursuing from JNTUH, Hyderabad.
- M.Tech (EM), from S.V University, Tirupati.
- M.Sc (Physics), from Acharya Nagarjuna University, Guntur.

Selected Publications

4. **Sridhar Mandava**, Subrahmanyam Ramachandrula, Aparna Yarramareddy and J.Kishore Babu (2017), Studies on Conversion of Thermal Energy in to Electrical Energy using Ferromagnetic Nickel as Core Material, International Journal of Engineering Research 6, 6, 322-325.
5. **Sridhar Mandava**, Subrahmanyam Ramachandrula and Aparna Yarramareddy (2017), Studies on Conversion of Thermal Energy in to Electrical Energy using Ferromagnetic Mild Steel as Core Material, International Journal of Advanced Research in Physical Science, 4, 3, 19-25.
6. **Sridhar Mandava**, Subrahmanyam Ramachandrula, Aparna Yarramareddy (2014), Effect of Thermal Treatment of a Ferro Magnetic Core on Induced EMF, Procedia Materials Science, Elsevier, 6, 436-443.
7. **Sridhar Mandava**, Subrahmanyam Ramachandrula, Aparna Yarramareddy, J Kishore Babu and G. Patrick (2018), Studies on Conversion of Thermal energy in to Electrical energy using ferromagnetic Cobalt as core material, Second National Conference on Materials for Specific Applications, 120-124.
8. J Kishore Babu, B Subba Rao, **Sridhar Mandava**, K Suresh, A S Sai Prasad and KVR Murthy (2018), Photoluminescence Study of Eu doped KBa_4APo_4 Phosphor, Second National Conference on Materials for Specific Applications, 31-33.
9. **Sridhar Mandava**, Subrahmanyam Ramachandrula, Aparna Yarramareddy and J Kishore Babu (2016), Heating Effects of Nickel on the Induced EMF and Effective Resistance of Secondary coil, First National Conference on Materials for Specific Applications, 123-125.
10. K Rama Krishna, K Vijaya Kumar, **Sridhar Mandava** and D Ravinder (2016), Magnetic Properties of Copper Zinc mixed ferrite nano particles synthesized by citrate precursor method, First National Conference on Materials for Specific Applications, 80-82.
11. J Kishore Babu, **Sridhar Mandava**, A.S.Sai Prasad and KVR Murthy (2016), Photoluminescence Studies of Eu doped CaAl_2O_4 Phosphor, First National Conference on Materials for Specific Applications, 115-118.
12. **Sridhar Mandava**, Subrahmanyam Ramachandrula and Aparna Yarramareddy (2015), Thermal variation of Induced EMF and Permeability in a Ferro magnetic Material, Third National Conference on Applied Physics and Materials Science, 107-109.
13. J Kishore Babu, **Sridhar Mandava** and KVR Murthy (2015), Luminescence Studies of BaY_2O_4 : Eu Phosphor, Third National Conference on Applied Physics and Materials Science, 117-120.
14. **Sridhar Mandava**, Subrahmanyam Ramachandrula and Aparna Yarramareddy (2013), Thermo Magneto Electric Effects due to Ferromagnetic Material, First National Conference on Applied Physics and Materials Science, 165-167.

P. APARNA

Areas of Interest: semiconductor opto electronic devices, fiber optics,

Education

- M.Sc.(Physics) Hindu college, Acharya Nagarjuna University Guntur

Selected Publications

1.P.APARNA, CHL Himabindu , On AVALANCHI PHOTODIODES, Proceedings of the national conference on "Materials for specific Applications" ISBN:978-81-928677-2-4,pp.91-93 January 2018.