# CURRICULUM VITAE

**1. Name** : **Dr. S. Saravanan**

**2. Age & Date of Birth** : **54 Years, 14.02.1966**

**3. Designation & Subject** : **Associate Professor and Head, Physics**

**4. Educational Qualification** : **M.Sc., M.Phil., B.Ed., P.G.D.C.A., Ph.D.**

**5. Date of Appointment** : **13.03.2000**

**6. Date of Retirement** : **14.02.2024**

**7. Spouse Name and Occupation** : **G.Revathy, Home Maker**

**8. Qualifications – Academic:**

| Examinations passed | Register Number | Month& Year of passing | Subject | Class with Marks or Grade | Name of the College/University |
|---|---|---|---|---|---|
| B.Sc., | 663027 | 1986 | Physics | First Class, 1491/1800 | Madurai Kamaraj University |
| M.Sc., | 86PGP5 | 1988 | Physics | First Class, 1291/2100 | Madurai Kamaraj University |
| B.Ed., | 255179 | 1990 | Physics | Second Class, 581/1000 | Madurai Kamaraj University |
| M.Phil., | | 1992 | Physics | First Class, 280/400 | Annamalai Univeristy |
| Ph.D. | | 2018 | Physics | | Bharathiar University |

**9. Teaching Experience**

| Sl. No. | Place of Service | Period | | Designation |
|---|---|---|---|---|
| | | From | To | |
| 1 | Jeyaraj Cheladurai College of Arts & Science, Periyakulam | March 1994 to March 1998 | | Lecturer |
| 2 | G.T.N. Arts College, Dindigul | 13th March 2000 to Till Date | | Associate Professor |

**10. Total Teaching Experience as on May 2022:**

Under graduate - 26 Years

**11. Area of Specialisation : i) Teaching - Electronics**

**ii) Research - Semiconductor Nano Materials**

**12. Research Project – Minor/Major**

| Sl. No. | Minor/Major | Title of the Project | Date of Submission | Period of the Project | Amount Sanctioned | Sponsoring Agency |
|---|---|---|---|---|---|---|
| 1 | **Minor** | Investigations On Effects Of Extrnal Perturbations On Excitonic Structure And Some Non –Linear Optical Properties In Inas/Inp Semiconductor Nanostructure | | **2015-2016** | **2.5 Lakh** | **U.G.C** |

**13. Orientation Course, Refresher, Short Term Courses Attended**

| Sl. No. | Name of the Institution/University | From | To |
|---|---|---|---|
| 1 | Bharathiar Univerity, Coimbatore | 06.09.2006 | 26.09.2009 |
| 2 | Bharathidasan University, Tiruchirappalli | 02.11.2006 | 29.11.2006 |
| 3 | Bharathidasan University, Tiruchirappalli | 08.08.2009 | 28.08.2009 |
| 4 | Bharathidasan University, Tiruchirappalli | 10.11.2010 | 30.11.2010 |
| 5 | Government Arts College, Melur | 08.02.2016 | 20.02.2016 |

**14. Seminars/Workshops/Conferences/Symposium – Participation**

| Sl. No. | Theme of Seminar / Workshops / Conferences/ Symposium | Institution/Organisation | Date |
|---|---|---|---|
| 1 | National Level Seminar on X-Ray Crystallography | N.M.S.S.V.N. College, Nagamalai, Madurai | 14.02.2014 |
| 2 | International Symposium on Nano Structures for Photovoltaic Applications | Fatima College (Autonomous), Madurai | 19.02.2014 |
| 3 | National Level Workshop on Computational Physics using Gaussian | N.M.S.S.V.N. College, Nagamalai, Madurai | 13.02.2015 |
| 4 | Lecture Workshop on Recent Trends in Advanced Material Science, Sponsored by Indian Science Academies | Arulmigu Palaniandavar College of Arts & Culture, Palani | 01.09.2017 and 02.09.2017 |
| 5 | Lecture Workshop on Interaction of Radiation with Matter | Government Arts College, Melur | 21.12.2017 and 22.12.2017 |

**15. Seminars/Workshops/Conferences/Symposium – Paper Presentation**

| Sl. No. | Title of the Paper | Seminar / Workshop / Conference | Institution where Attended | Year |
|---|---|---|---|---|
| 1 | Some Optical Properties in Low Dimensional Semiconductors | National Conference on Recent Developments in Physics | Govt., Arts and Science College, Melur | 2013 |
| 2 | Intersubband Optical Transition in a Narrow Bandgap Material for Telecommunication Applications | National Conference on Latest Trends in Physics for Inter-Disciplinary Advancements | Jayaraj Annapackiam College for Women (Autonomous), Periyakulam | 2014 |
| 3 | Narrow Band Gap Semiconductor for Mid-Infrared Fibre Telecommunication Network – An Overview | International Seminar on Recent Advances in Nano Semiconductors | G.T.N. Arts College, Dindigul | 2014 |
| 4 | Non-Linear Optical Properties of Group III-V Semiconductor for Potential Applications | State Level Conference on Recent Trends in Material Science and Energy Science | Arulmigu Palaniandavar Arts College for Women (Autonomous), Palani, | 2014 |

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|---|---|---|---|---|
| 5 | Interband Optical Transition Energies in a Narrow Band Semiconductor Quantum Wire | 3rd National Conference on Advanced Functional Materials and Applications (NCAFMA–2014 | Kalasalingam University , Srivilliputhur | 2014 |
| 6 | Binding energy of a magento – exciton in an InAsP quantum well wire for the potential application of telecommunication network | International Conference on Advances in New Materials (ICAN- 2014) | University of Madras, Chennai | 2014 |
| 7 | Optical susceptibility of generation of second harmonic co-efficients in a strained $InAs_{1-x}P_x$ / InP quantum wire | International Conference on Nanoscience and Engineering Applications (ICONSEA – 2014), | Jawaharlal Nehru Technological University ( JNTU ), Hyderabad | 2014 |
| 8 | Optical Gain in InAs/InP Quantum Wire | National Seminar on Exploration on Properties of Materials | Govt., Arts and Science College, Melur | 2014 |
| 9 | Simultaneous effects of magnetic and electric fields on the second harmonic generation in $InAs_{1-x}P_x$/InPnano wire | 4th International Conference on Current Developments in Atomic, Molecular, Optical and Nano Physics with Applications (CDAMOP–2015), | University of Delhi, New Delhi | 2015 |
| 10 | Effect of Pressure on Optical Gain in InAsP/InP Quantum Well Wire | National Level Seminar on Recent Advances in Chemistry ( RAC – 2015 ) | G.T.N. Arts College Dindigul | 2015 |
| 11 | Effect of External Perturbations on Optical Gain in InAsP/InP Nano Wire | National Level Seminar on Semiconductor Materials and Device Processing for Energy Applications | Arulmigu Palaniandavar Arts College for Women (Autonomous), Palani, | 2015 |
| 12 | Simultaneous Effects of Magnetic & Electric Fields on the Second Harmonic Generation in InAsP/InP Nanowire | State Level Seminar on Advanced Material Science | Sacred Heart College of Arts and Science, Dindigul | 2015 |
| 13 | Interband Optical Transition Energies in InAs/InP Semiconductor Nanostructure | International conference on Nanomaterials for Frontier Applications (ICNFA–2015) | Coimbatore Institute of Technology (C.I.T), Coimbatore, | 2015 |
| 14 | Optical gain for the interband optical | 60th Solid State Physics symposium 2015, | Amity University, Noida | 2015 |

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|---|---|---|---|---|
| | transition in InAsP/InP quantum well wire in the influence of laser field intensity | Department of Atomic Energy (DAE), | | |
| 15 | Optical gain in $InAs_{0.8}P_{0.2}$/InP quantum well wire in the influence of laser field effect | International Conference on Materials for the Millennium (MATCON- 2016) | Cochin University of Science and Technology, Kochi, | 2016 |
| 16 | Interband optical transition energies in a narrow band semiconductor quantum wire | International Conference on Recent Trends in Materials (ICRTM-2016), | Devanga Arts College, Aruppukottai, | 2016 |
| 17 | | State Level Seminar on Emerging Trends in Medical Physics | Arulmigu Palaniandavar College of Arts & Cuture, Palani | 2016 |
| 18 | Optical susceptibilities of harmonic generation in a group III-V quantum wire in the presence of temperature | Conference on Emerging Materials (CEMAT-2016) | Indian Institute of Science, Bangalore | 2016 |
| 19 | | National Level Seminar on Applications of Quantum Mechanics and Nano Materials for Energy Storage | Arulmigu Palaniandavar College of Arts & Cuture, Palani | 2018 |

**16. Seminars/Workshops/Conferences/Symposium – Organised**

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|---|---|
| 1 | International Seminar on Recent Advances in Nano Semiconductors, G.T.N. Arts College, Dindigul on 24.02.2014 |

**17. List of Publications**
**International Journals**

| Sl. No. | Title of the Article | Name of the Journal | Volume, Year, Page No. | ISSN No. | Impact Factor | Scopus Index Yes / No |
|---|---|---|---|---|---|---|
| 1 | Absorption coefficients for inter band optical transitions in a strained $InAs_{1-x}P_x$/InP quantum wire | Journal of Luminescence | 147 (2014) 34–40 | | | |
| 2 | Combined effects of magnetic and electric fields on the inter band optical transitions in InAs/InP Quantum wire | Physica E, | 67(2015) 99–104 | | | |
| 3 | Pressure induced interband optical Transitions in an $InAs_{0.8}P_{0.2}$/InP Quantum Wire | Phase Transitions, | 88 (2015) 1147-1569. | | | |
| 4 | Temperature dependent optical transitions in InAs/InP quantum well wire | Journal of Advanced Physics | 5 (2015) 1-7 | | | |
| 5 | Phonon effects on interband optical transitions In $InAs_{0.8}P_{0.2}$/InP quantum wire | Journal of Luminsecence, | 169(A) (2016) 86 – 92 | | | |
| 6 | Laser field induced optical gain in a Group III-V quantum wire | European Physical Journal D | | | | |
| 7 | Binding energy of a magento – exciton in an InAsP quantum well wire for the potential application of telecommunication networks | International Journal of Innovative Research in Science and Engineering | 2 (1) , ( 2014 ) 681 – 687 | ISBN : 978-81-89843-57- | | |
| 8 | Optical susceptibility of generation of Second Harmonic co-efficients in a strained $InAs_{1-x}P_x$ / InP quantum wire | International Conference on Nanoscience and Engineering Applications | 27-28 2014 | ISBN: 978-81-924726 -2 -1 | | |

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|---|---|---|---|---|---|---|
| 9 | Simultaneous effects of magnetic and electric fields on the second harmonic generation in $InAs_{1-x}$ P $_x$/InP nano wire | Journal of Atomic, Molecular, Condensate and Nano Physics | | ISSN 2349 – 2716 | | |
| 10 | Interband optical transition energies in InAs/InP semiconductor nanostructure | International Journal Theoritical and Applied Technology (IJTAN) | | | | |
| 11 | Optical gain for the interband optical transition in InAsP/InP quantum well wire in the influence of laser field intensity | AIP Proceedings | | | | |
| 12 | Optical gain in $InAs_{0.8}P_{0.2}$/InP quantum well wire in the influence of laser field effect | | | ISBN : 978-93-80095-738 ( Volume II) | | |

**18. Membership in Academic Bodies / Editorial Boards and Board of Studies**

1. Member of Board of Studies in Arulmigu Palaniandavar College for Women (Autonomous) , Palani
2. Member in Editorial Board in Jayaraj Annapackiam College for Women (Autonomous), Periyakulam

**19. Paper Setters / Examiner ship in other Institutions**

1. Question Paper Setter and Examiner in Saraswathi Narayanan College, Madurai, V.V.V. College, Virudhunagar, G.V.G. Arts College, Udumalaipet, H.R.K.M.College, Uthamapalayam, Devangar Arts College, Arupukottai, Vivekananda College, Thiruvedagam, Madurai , Mannar Thirumalai Naickar College, Madurai, Sourashtra College, Madurai,and Arulmigu Palaniandavar College for Women, Palani.