

The American College, Madurai

Faculty Profile

Name : Dr. SUJANAH P
Date of Joining : 22.06.2011
Designation : Assistant Professor
Department : Physics



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Objective:

Being a quick learner, having passion for teaching, to utilize my skills and abilities in the teaching profession for the welfare of the student community.

I. Education Qualification:

| Degree | Subject | College/University &Place | Year Completed |
|--------|------------------|--|----------------|
| Ph.D | Physics | Madurai Kamaraj university, Madurai. | 2017 |
| M.Phil | Physics | Annamalai university, Chidambaram. | 2009 |
| B.Ed | Physical Science | Christ college of Education, Madras university, Chennai. | 2006 |
| M.Sc | Physics | The American college, Madurai. | 1999 |

II. Specialization in Research:

Quantum Physics-Low dimensional semiconductors

III. Work Experience:

Working as Assistant Professor in the Department of Physics, The American college, Madurai since 2011.

Handling P.G and U.G classes for 11 years.

IV. Other work experience:

| Designation | Institution / Company | Year – From (month/year) To (month/year) |
|--------------------|--|---|
| P.G Asst | Nehru Vidya Salai, Madurai | Jun 2009 to April 2011 |
| P.G Asst | St. Joseph Mat. Hr. Sec. School, Madurai | Jun 2008 to April 2009 |
| P.G Asst | S.P.V. Mat. Hr. Sec. School, Madurai | Oct 2006 to April 2008 |
| P.G Asst | Noyes Mat. Hr. Sec. School, Madurai, | Jan 2006 to Oct 2006 |

V. Administrative / Academic Position/s (held / currently holding):

| Positions held / currently holding | Year – From (month/year) To (month/year) |
|---|---|
| NSS Program Officer | from Aug 2014 to Mar 2016 |

VI. Membership in Professional Bodies: (Include Board of Studies/ journal/ article)

| Positions held / currently holding in Professional Body | Year – From (month/year) To (month/year) |
|---|---|
| Life member in Indian Science Congress Association (ISCA) Kolkata | From 2019 |
| Member of Board of studies of the certificate courses in the physics department of Madurai SivakasiNadars Pioneer Meenakshi Women's College, Poovanthi, Sivaganga District. | July2018 till date |
| Member of Board of studies,The American college,Madurai. | April 2012- April2018 |
| Member of academic council, The American college,Madurai. | June 2012- June2018 |
| Member of Young women's Christian Association (YWCA), Madurai. | From 2014 till date |

VII. Articles Published in International Journals: (List to be given with complete

| S.No | Year of Publication | Title of the Paper | Journal Name | ISSN -No / ISBN -No | Peer Reviewed (Yes/No) | Indexed in Scopus/ Elsevier/ Thomson Reuters/ Web of Sciences | Impact Factor |
|-------------|----------------------------|--|---|----------------------------|-------------------------------|--|----------------------|
| 1 | 2015 | Optical studies of an exciton and a biexciton in a CdTe/ZnTe quantum dot nanostructure. | Optics Communications | ISSN: 0030-4018 | YES | Elsevier | 1.961 |
| 2 | 2015 | Electronic and optical properties of exciton, trions and biexciton in II-VI parabolic quantum dots. | Physica E (LowDimensional systems and Nano structures) | ISSN: 1386-9477 | YES | Elsevier | 3.176 |
| 3 | 2015 | Electronic properties of exciton and biexciton in a CdTe/ZnTe nano-heterostructure, 1665, 120002 (2015). | AIP Conf. Proceedings | ISBN :978-0-7354-1310-8 | YES | Scopus | |

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|----------|------|--|---|-----------------|-----|----------|-------|
| | | | | | | | |
| 4 | 2016 | Magnetic field induced Trions in a Telluride based II – VI material. | Int J.Mod.Phy.B | ISSN: 0217-9792 | YES | Scopus | 0.89 |
| 5 | 2016 | Laser induced magneto-Raman optical gain of an exciton and a biexciton in a CdTe/ZnTe quantum dot. | Chemical Physics | ISSN: 0301-0104 | | Elsevier | 2.997 |
| 6 | 2017 | Pressure induced threshold optical pump intensity in CdTe/ZnTe quantum dot. | Phase Transition | ISSN: 1029-0338 | YES | Scopus | 1.028 |
| 7 | 2017 | Magnetic field dependent Raman gain for the charged excitons in a CdTe/ZnTe quantum dot. | ROOTS, International journal of multidisciplinary researches | ISSN: 2349-8684 | YES | | 4.075 |

VIII. Articles published in National Journals

IX. International/National/State level Conference / workshop/ Seminar Presentations:

| Name of the Seminar/Conference/Symposia Workshop etc., | Title of paper | Institution, Place and Date |
|---|---|--|
| ENERGY FEST'17 Seminar on Advanced Technologies and Innovations in Energy and Environment. | Synthesis of Zinc oxide nano particles and study of its antibacterial activity. | School of Energy, Environmental and Natural Resources, Madurai Kamaraj university on 28 th March 2017. |
| International conference on recent Trends in Materials - ICRTM-2016 | Binding energies of Exciton, charged excitons and Biexciton in a CdTe/CdMgTe quantum dot. | Devanga arts college, Aruppukottai during 22-23 January 2016. |
| International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS-15). | Raman optical gain of exciton and charged excitons in a group II-VI heterostructure | Madurai Kamaraj University, Madurai, during 11-12 December 2015. |
| 8th International Conference on Materials for Advanced Technologies - ICMAT | Laser field induced interband optical transition energies of trions in a CdTe/ZnTe core/shell quantum dot | Material Research Society, Suntec, Singapore, during June 28-July 3, 2015. |
| 4th International Conference on Current Development in Atomic, Molecular, and Optical Physics CDAMOP-2015 | Radiative lifetime of an exciton and a biexciton in Tellurium-based II-VI semiconductor Quantum Dot. | Delhi University, New Delhi, during March 11-14, 2015. |

| Sl.No | Year of Publication | Title of the Paper | Journal Name | National / International Conference | ISSN- No / ISBN- No | Peer Reviewed (Yes/ No) | Impact Factor |
|--------------|----------------------------|---|---------------------|--|----------------------------|--------------------------------|----------------------|
| 1 | 2014 | Effects of geometrical confinement on binding energies of an exciton and a biexciton in a CdTe/ZnTe quantum dot | J. Res. Sci. | | ISSN: 2278-9073 | YES | |

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|---|--|--|
| | | |
| International Conference, 59th DAE Solid State Physics Symposium. | Electronic properties of exciton and biexciton in a CdTe/ZnTe nano-heterostructure. | VIT University, Vellore, during December 16-20, 2014. |
| National Conference on Recent Trends in Quantum Chemistry (Quantum 2014). | Effects of Geometrical confinement on binding energies of Exciton and a biexciton in a CdTe/ZnTe quantum dot. | Nesamony Memorial Christian College, Marthandam, during December 12-13, 2014. |
| National Seminar on Exploration on Properties of Materials. | Optical studies of an exciton and a biexciton in a Tellurium based Quantum dot nanostructure. | Govt Arts College, Melur, Madurai, on September 5, 2014. |

X. Conferences Participated and Presented- Overseas:

| | | |
|---|---|---|
| 8th International Conference on Materials for Advanced Technologies - ICMAT | Laser field induced interband optical transition energies of trions in a CdTe/ZnTe core/shell quantum dot | Material Research Society, Suntec, Singapore, during June 28-July 3, 2015. |
|---|---|---|

XI. Lectures / Talks given:

(List the title of the lecture / talk, date, institution and place)

| Name of the Seminar/Conference/Symposia Workshop etc., | Title of paper | Institution, Place and Date |
|--|--|--|
| Special lecture during Inaugural function PIO-GRAVITA-'18 | Introduction to low dimensional Physics. | Madurai Sivakasi Nadars Pioneer Meenakshi Women's College, Poovanthi, Sivaganga District, on July 18 2018. |

| | | |
|----------------------|---|--|
| Guest lecture | Investigations on nonlinear optical properties in group II-VI semiconductors. | Devanga arts College, Aruppukkottai , on July 4, 2016. |
| Guest lecture | Electronic and Optical properties of II-VI semiconductors. | Yadava College, Madurai , on March 30, 2016 |
| Guest lecture | Studies on low dimensional semiconductors | V.V.V College for Women, Virudhunagar , on August 13, 2015. |

XII. Academic activity:

- NAAC -Subcommittee member worked for the criterion II.
- Autonomy review-Subcommittee member.
- AIACHE Golden Jubilee year - Subcommittee member.
- Students Academic advisor since 2011.
- Worked for the AAA-Academic administrative audit 2020-21.
- Sub-Committee member ‘PHOBOS’ (ICM).
- Sub-Committee member in science exhibition.
- Sub-Committee member ‘REVERBERATE’ (ICM).
- Convenor for the Department alumni meet “RETRIEVE – 2022”.
- Supervisor for the P.G and U.G projects
 - Guided 7 P.G projects
 - Guided 9 U.G projects

XIII. Extension activities:

- Conducted NSS camp for the year-2014 in the adopted village during 01.12.2014 to 07.12.2014
- Participated and conducted several
 - Blood donation camp,
 - AIDS awareness program,
 - Dengue awareness program,

- Literacy program,
- Visiting and helping Old age home people and other special programs with the convenor and other program officers.

XIV. Any other activities / information / academic credentials you would like to mention:

- **SCM** - Committee member of Students Christian Movement from the year 2012-2017.
- **Green Club**- Committee member of Green club since 2014.
- **College Choir** – Member of college choir 2012-2017.
- Led vespers service.
- Delivered messages in the chapel during morning and afternoon devotion time in every semester.

XV. Conference/Seminar/workshop Participated

1. Participated in the **Global Leadership Summit 2018-19** representing SCM of The American College, Madurai.
2. Participated in the two day workshop on “**Advanced Materials Characterisation Techniques (AMCT)**” held in school of Physics, Madurai Kamaraj University on 26th and 27th March, 2018.
3. Participated in the two day lecture workshop on **Emerging Trends in Applied Physics** on 22nd and 23rd of September 2017, organised by Department of Physics, Devanga arts college, Aruppukottai.
4. Attended one day workshop on “**Astronomy and Astrophysics**” held at The American college, Madurai on Friday 19, August 2016.
5. Participated in the **International workshop on Strongly Correlated Materials (IWSCM'15)** held at Centre for High Pressure Research, School of Physics, Bharathidasan University, Tiruchirappalli on 20th January 2015.
6. Participated in the one day workshop on **Material Characterization techniques-AFM&XRD** in school of Physics, Madurai Kamaraj University on 19th November 2014.

7. Participated in the state level seminar entitled “**Recent Advances in Materials Science**” on 04 August 2014 held at Sri S.Ramasamy Naidu Memorial College, Sattur.
8. Participated in the National Seminar on **New Materials Research and NanoTechnology** (NSNMRN 2012) held at Government Arts College, Udthagamandalam from 12th to 14th September 2012.

XVI. Participation in Webinar

1. Participated in the Webinar on “**Supercapacitors: New Age Energy Storage Devices**” organised by the Department of Physics, Ayya Nadar Janaki Ammal College, Sivakasi on 19.05.2020.
2. Participated in the Webinar organized by the Ladies club of The American College, Madurai on 27th of May 2020.
3. Participated in the Webinar on “**Women at risk Blossom**”, organized by the Ladies club of The American College, Madurai on 09.06.2020.
4. Participated in the Webinar on the topic “**Self Awareness and Social Responsibility during COVID 19 Pandemic**”, organised by the Ladies club of The American College, Madurai on 13.06.2020.
5. Participated in the International webinar on “**Recent Trends in Advanced Material Science-RTAMS-2020**” organized by Post graduate & Research Department of Physics held on June 19,2020.
6. Participated in “**Symposium on recent advances in smart sensors**” organised by SRM Institute of Science and technology, Ramapuram campus, Chennai, Tamilnadu on 26th August 2021.

XVII. Orientation Program/ Refresher course/ Faculty development program

1. Successfully completed online **Two-week refresher course in Physics** organised by Teaching- learning centre, Ramanujan college, University of Delhi, from 27 October to 10 November, 2021 and obtained **grade A+**.

2. Participated in online **Two-week faculty development programme on “Advances in computational and experimental research in physics”** organised by SRM Institute of Science and technology, Ramapuram campus, Chennai, Tamilnadu on 27th July to 8th August 2020.
3. Participated in **five days online faculty development programme on “Recent trends in digital technologies”** organised by department of computer science, The American college, Madurai held from 07/07/2020 to 11/07/2020.
4. Participated in the **Faculty training workshop of Southern Asia** organized by United Board for Christian Higher Education in Asia (**UBCHEA**) held at **St.Aloysius college, Jabalpur(M.P)** during 23rd-26th October 2018.
5. Participated in the Faculty training programme **“Tuning young faculty towards effective teaching”** organised by **St.Christopher’s college of Education, Chennai**, funded by United Board for Christian Higher Education in Asia (**UBCHEA**) from 23.01.2018 to 27.01.2018.
6. Participated in the **orientation training** at Empanelled training Institution- National Service Scheme, **Avinashilingam University, Coimbatore** from 23.09.2014 to 29.09.2014.