

(Nationally Re-accredited with B<sup>++</sup>Grade by NAAC 3<sup>rd</sup> Cycle) (Affiliated to Bharathidasan University, Tiruchirappalli)

Pudukkottai - 622001, Tamilnadu, India.

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## **CRITERION III – RESEARCH INNOVATIONS AND EXTENSION**

#### 3.7. COLLABORATION

#### 3.7.1.3 Collaborative activities

#### DEPARTMENT OF TOURISM AND TRAVEL MANAGEMENT

Based on the MOU, in academic year 2022-2023 the Department of Tourism and Travel Management has organized World Tourism day Seminar, Cultural activity, and a special along with the Udhyam Air Travel Pudukkottai. The theme of the Seminar on "Tourism and Green Investments". The chief guest of the special lecture was Mr. Arun Rebero, Contura Solar India PVT LTD., Trichy. In his presentation he has pointed out the need and importance of the Green Energy and Alternative Energy. Mr. Ramesh Babu Udhyam Air Travels Pudukkottai and District Tourist officer Pudukkottai has acted as guest of Honor of the event. There were more than 240 students has participated within and outside of the departments.

Before the World Tourism Day Celebrations, there were various special competitions conducted for the intra college students. At the end of the events prizes were distributed to the winners.

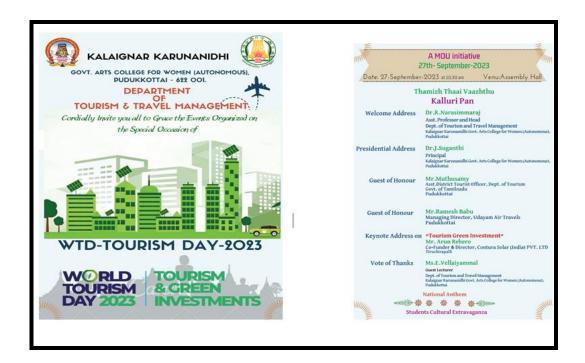


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## PG & RESEARCH DEPARTMENT OF PHYSICS

MoU was signed between the Lakshmi Electronics and PG & Research Department, Kalaignar Karunanidhi Govt. Arts college for Women(Autonomous), Pudukkottai-6200 001, Friday. Following that the Chief Executive Officer of Mrs. M. Kalaiselvi, The Lakshmi Electronics, Trichy has given the training to the PG students to design a circuits which comes under their curriculum. The discrete components were provided by the company and every students with soldering rod made a circuit connections and tested the working of the circuits.







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#### 3.7.1.1 Collaborative Activities of

# Dr.R.Santhakumari, Associate Professor & Head & Dr.Suresh Sagadevan, Associate Professor, Nanotechnology catalysis and Research Centre, University of Malaya, Kualalumpur, Malaysia



Dr. Suresh Sagadevan
Associate Professor
Nanotechnology catalysis and Research centre
University of Malaya
Kualalumpur, Malaysia.



Pudukkottai – 622 001. Tamil Nadu, India

Date: 01.03.2022

LINKAGE

LINKAGE For the year 2022-2023 Between

 Dr. Suresh Sagadevan Associate Professor Nanotechnology catalysis and Research centre, University of Malaya Kualalumpur, Malaysia. Dr.R. Santhakumari
 Associate Professor & Head
 PG and Research Department of Physics
 Kalaignar Karunanidhi Govt., Arts College For
 Women (Autonomous)
 Pudukkottai – 622 001. Tamil Nadu, India

Kalaignar Karunanidhi Govt., Arts College

For Women (Autonomous)

Considering the significance of the noble cause for the student community, we have come forward to collaborate with each other to exchange research knowledge, expertise, characterization facilities to the process of scientific research and education in the field of Crystal growth and Spectroscopy. The parties (mentioned above as 1. & 2.) have had preliminary discussion in this matter and have ascertained areas of broad consensus. The parties now therefore agreed to enter in writing these avenues of consensus, under a flexible linkage, and this project aims to fill the gap between knowledge demand and subject expertise related to the mentioned field.

#### Joint Responsibilities

- · Joint Publication of research articles, books, magazines, bulletins etc.,
- · Jointly organizing conferences, seminars, symposia and workshops.
- Submitting joint proposals for research funding from agencies like UGC, CSIR, DST and TNSCST.

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Dr. Suresh Sagadevan, FRSC Associate Professor Nanotechnology and Catalysis Research Center (NANOCAT) University of Malaya, Malaysia E-mail: drauershasgadevan@um.edu.my Tel: +603-7967 7022 ext. 2945 (O), +6017-3149448

FROF HADYA DR. SURESH SAGADEVAN Associate Professor Service/Hampy & Contype Research Carting (MANCAST) (or Place, Street, A. module for Associati Studies (ASI) - Dr. R. SANTHAKUMARI Associate Professor & Head. PG and Research Department of Physics, Kalaignar Karunanishi Gevt. Arts College for Women (Autonomous). Pudukkottai - 522 001.



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### **RESEARCH ARTICLE JOINTLY PUBLISHED SINCE 2021**

1. 3-D Supramolecular, quantum computational, and vibrational spectroscopic investigation on L-cysteinium methanesulfonate single crystals. P.Koteeswari, Solhe F. Alshahateet,R. Santhakumari, Is Fathima, **Suresh Sagadevan** *Molecular Crystals and Liquid Crystals*, (2023),

http://dx.doi.org/10.1080/15421406.2023.2171558.

2. "Growth, NBO, and vibrational studies combined with intramolecular hydrogen bond interaction of L-Valine lead (II) nitrate complex: DFT" Usha C, Buvaneswari, M; Santhakumari, R; ;Jayasree, R Suresh Sagadevan, Journal: Journal of Molecular Strucutre (2022), Volume 1249, Pages:131570,

#### https://www.sciencedirect.com/science/article/abs/pii/S0022286021016987#!

- \_3. Synthesis, growth, physicochemical characterization, and computational studies on aminopyridinium chloronicotinate single crystal, G. Amudha, **R. Santhakumari**, D. Chandrika, S. Mugeshini N. Rajeswari, **Suresh Sagadevam Crystal Research & Technology** 57, (2022) 2100265,
- , https://doi.org/10.1002/crat.202100265
- 4. Growth, spectroscopic, and Hiresfeld surface analysis on pyridine urea single crystal.
  - G. Amudha, **R. Santhakumari**, D. Chandrika S. Mugeshini N. Rajeswari, **Suresh Sagadevan ,Journal of Molecular Structure.** 1257 (2022) 13260,

#### https://doi.org/10.1016/j.molstruc.2022.132606.

5. Synthesis, growth, DFT, and HOMO-LUMO studies on pyrazolemethoxy benzaldehyde single crystals.G. Amudha, **R. Santhakumari**, D. Chandrika, S. Mugeshini, N. Rajeswari, **Suresh. Sagadevan, Chinese. Journal of Physics 76 (2022)** 44–58,

## https://doi.org/10.1016/j.cjph.2021.10.038

- 6.Synthesis, growth, supramolecular, experimental, and theoretical characterization of 6-amino-1H-pyrimidine-2,4-dione dimethylacetamide single crystal. S. Mugeshini , R. **Santhakumari**, N. Rajeswari ,G. Amudha, D. Chandrika, F.Solhe, Alshahateet. *Chinese Journal of Physics* Volume:76, (2022),Pages:14-23. <a href="http://dx.doi.org/10.1016/j.cjph.2021.10.037">http://dx.doi.org/10.1016/j.cjph.2021.10.037</a>
- **7.** Growth, computational studies and docking analysis on α- pyrrolidinopentiophenone hydrochloridemonohydrate single crystal. S. Mugeshini ,**R. Santhakumari**, N. Rajeswari , G. Amudha, D. Chandrika , *Journal of Molecular Structure* Volume 1249 (**2022**), 131600.



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#### https://doi.org/10.1016/j.molstruc.2021.131600.

8. Synthesis, growth spectral and computational studies on Aminomethylpyridinium trichloroacetate single crystal. Rajeswari, *R. Santhakumari*, S. Mugeshini, D. Chandrika, Suresh Sagadevan, Journal: *Chinese Journal of Physics* (2021), Volume 73, Pages: 746-755.

https://doi.org/10.1016/j.cjph.2021.08.010

9. Growth and computational studies on vanillin isoniazid single crystals. S. Mugeshini, R. Santhakumari, N. Rajeswari, G. Amudha, D. Chandrika, Suresh Sagadevan *Chinese Journal ofPhysics* (2021), Volume 72, 229-239.

https://doi.org/10.1016/j.cjph.2021.04.025

10.Synthesis, growth, structural, spectroscopic, optical, thermal, DFT, HOMO–LUMO, MEP, NBO analysisand thermodynamic properties of vanillin isonicotinic hydrazide single crystalBuvaneswari, M;Santhakumari, R;Usha C;Jayasree, R Sagadevan,Suresh *Journal: Journal of Molecular Strucutre* (2021), *Volume 1243, Pages: 130846*,

https://www.sciencedirect.com/science/article/abs/pii/S0022286021009893?via%3Dihub

11."Synthesis, growth and computational studies on vanillin nicotinamide single crystals"Buvaneswari, M; **Santhakumari, R**; Jayasree, R; Sagadevan, Suresh, Journal: *Applied Physics A* (2021) Volume: 127,7,544, *Publisher: Springer Berlin Heidelberg* 

https://scholar.google.com/scholar?oi=bibs&cluster=11366455528636393081&btnI=1&hl=en

12. "Synthesis, growth, crystal structure, vibrational, DFT and HOMO-LUMO analysis on protonatedmolecule-4-aminopyridinium nicotinate, R. Vasanthakumari **Santhakumari R**, Nirmala W. Suresh Sagadevan Mugeshini S, Rajeswari Journal: *Journal of Molecular structure* (2021), Volume 1239, 130449,

https://scholar.google.com/scholar?oi=bibs&cluster=11821331330726099174&btnI=1&hl=en



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#### **DEPARTMENT OF PHYSICS**

<u>Dr.R.Santhakumari, Associate Professor & Head & Dr.K.Ravichandran, Associate Professor,</u> <u>Sri AVVM Pushpam College (Autonomous), Poondi, Thanjavur</u>





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## DEPARTMENT OF PHYSICS



JOINTLY ORGANIZING WORKSHOP



JOINTLY PUBLISHING RESEARCH ARTICLE



SHARING INSTRUMENTATION FOR RESEARCH SCHOLARS



PRINCIPAL,

KALAIGNAR KARUNANIDHI GOVT.

ARTS COLLEGE FOR WOMEN (A),

PUDUKKOTTAI - 622 001