

PHYSICS NEWSLETTER

AUGUST 2023 ISSUE No. 3

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ARUL ANANDAR COLLEGE (Autonomous)
Re-accredited with CGPA of 3.15 by NAAC
DST - FIST Awarded College
Affiliated to Madurai Kamaraj University
Karumathur - 625514, Madurai - Dt. Tamil Nadu



EDITORIAL DESK

Warm Greetings to all from the PG and Research Department of Physics, Arul Anandar College, Karumathur, Madurai Dist. I am delighted to take charge as the Head of the 35-year-old Department. First let me thank all the pioneers who retired their service from this department. Next, I thank Dr. K. S. Joseph Wilson, the former Head of this department who initiated the publication of Physics Newsletter.

We (teaching and non-teaching staff and students of the Department of Physics) are glad to release the 3rd issue of Physics Newsletter in a new template. It disseminates news about recent changes in the department, activities of the Department and achievements of Staff and Students during the academic year 2022-2023.

Through this newsletter, the staff members and students of the department share their regular matters and achievements to our alumni, to the academicians, to the public else-where. The department has organized several guest lectures, field visits, intramural competition and intercollegiate competition for the benefit of the young Physics student community to ignite their minds towards physics. An international conference and several research seminars were organized to improve the presentation skills of our PG students and research scholars. Two new MOUs were signed to increase the link of our department with renowned institutes. Mainly the achievements of our research scholars and their international publications speak loud of the Department's recognition as one the research centers of Madurai Kamaraj University.

All the staff members of the department proved their excellence in coordinating the events at the college level and at the department level. I sincerely thank all of them that the year 2022-2023 has been filled with full of activities and achievements. I also thank Dr. S. Valanarasu and Dr. I. Inigo Valan for their efforts in bringing this 3rd issue of Physics Newsletter in a new format. As an editor of this newsletter (a new role to me), I thank all the readers of this newsletter and wish every one of you to have a useful reading.

Dr. A. SHANMUGARAJU



BENIDICTORY NOTE

**“The best things in
life aren’t things but
the people”**

It’s been a splendid journey in my life for the past five years serving as the head of the PG and Research Department of Physics at Arul Anandar college. It has been a wonderful and fulfilling experience that I will always cherish.

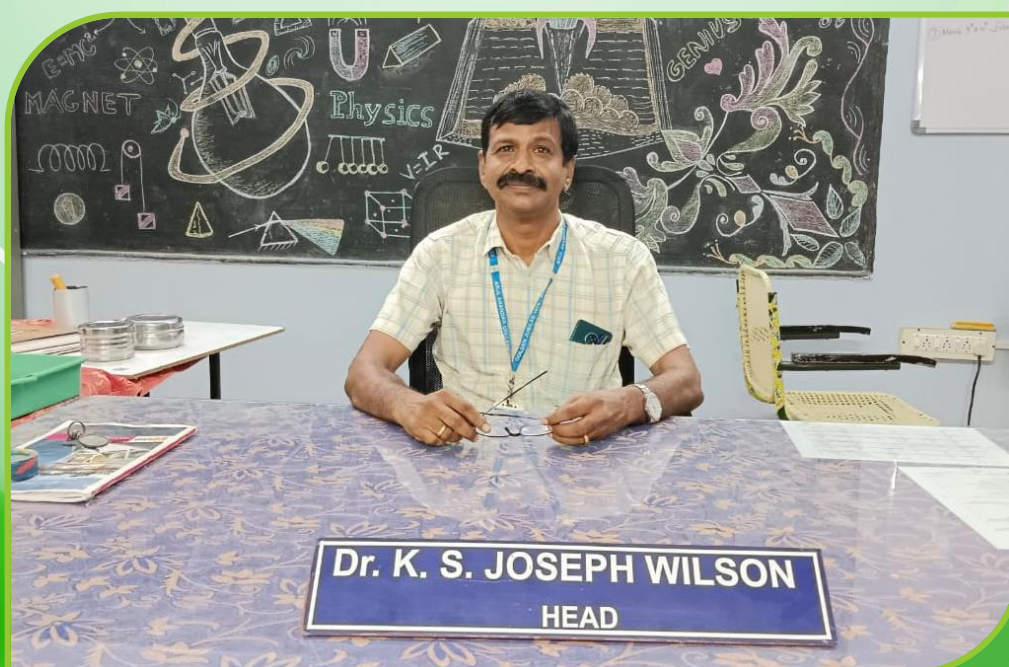
As I reflect on this time, I am reminded of the adage, "The best things in life aren't things but the people." I truly believe in this sentiment, and I consider myself incredibly fortunate to have had the opportunity to work alongside such dedicated and supportive teaching and non-teaching staff members, as well as our beloved students.

During my tenure as the head of the department, I am proud to say that we have achieved numerous successes in research and higher education. This accomplishment would not have been possible without the collective effort and commitment of everyone involved. It is heartening to see our department thrive and excel in its endeavors.

As I pass on the mantle of leadership to Dr. A. Shanmugaraju, I offer my wholehearted wishes. I want to extend my loving wishes to each and every one of the staff members of our department as they continue to work tirelessly for the benefit of our students and the Department of Physics at Arul Anandar College.

It has been an honor and a privilege to serve as the head of this department, and I look forward to witnessing its continued growth and success in the future.

Dr. K. S. JOSEPH WILSON



DEPARTMENT DYNAMICS

In the Academic year 2022 – 2023, the Post-Graduate and Research department of Physics functioned with great enthusiasm. The department has organized one international conference, eight guest lectures, three industrial visits (CECRI, Karaikudi, Solar Observatory, Kodaikanal and VSSC-ISRO, Trivandrum), one Intercollegiate competition PHYSAAC-2023.

In this academic year four students have defended their doctoral viva-voce. Overall the department has produced 25 doctorates [Ph.D., candidates]. In this academic year 21 research articles have been published in internationally well reputed journals. The department established Memorandum of Understanding (MOUs) with Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai and Kalasalingam Academy of Research and Education (KARE), Krishnankovil.

A feasibility to adopt TANSCHÉ syllabus for both undergraduate and postgraduate physics students from the academic year 2023 – 2024 was discussed in the board of studies meeting of 2022 - 2023.

Dr. S. Valanarasu was appointment as the Co-Ordinator of Internal Quality Assurance Cell of Arul Anandar College, Dr. C.S.A. Raj was appointed as the new Vice President of Physics Association. Mr. S. Manoj Aravind, III year B.Sc., Physics student was selected as the Secretary of Physics Association for the academic year 2022 - 2023.

Dr. P. Libin Raj relieved from the department, in the academic year 2022 – 2023. The department thank Dr. P. Libin Raj for his service.



Dr. C.S.A. Raj,
Vice-President, Physics Association



Mr. S. Manoj Aravind
Student Secretary, Physics Association

FACULTY MEMBERS



Dr. A. SHANMUGARAJU
ASSOCIATE PROFESSOR & HEAD



Dr. K. S. JOSEPH WILSON
ASSOCIATE PROFESSOR



Dr. S. VALANARASU
ASSISTANT PROFESSOR



Dr. J. SOPHIA
ASSISTANT PROFESSOR



Dr. C.S.A. RAJ
ASSISTANT PROFESSOR



Dr. S. SEBASTIAN
ASSISTANT PROFESSOR



Dr. M. ANTONY
ASSISTANT PROFESSOR



Mrs. V. BUVANESWARI
ASSISTANT PROFESSOR



Dr. B. PRAKASH
ASSISTANT PROFESSOR



Dr. I. INIGO VALAN
ASSISTANT PROFESSOR



Dr. P. LIBIN RAJ
ASSISTANT PROFESSOR

RESEARCH ACHEIVEMENTS

Several research accomplishments were made by our staff and students in the academic year 2022-2023. Twenty-one research articles were published in several peer reviewed journals of prominent international publishers such as Institute of Physics, Wiley and Elsevier. Nine research articles from our department were presented in several conferences/symposiums organized by academic institutes all over India, such as Indian Institute of Technology Bombay, Mumbai, St. Joseph's College for Women, Alappuzha, Kerala, SSN College of Engineering, Chennai, St. Joseph's College, Trichy and The Standard Fireworks Rajaratnam College for Women, Sivakasi. Fourteen research articles were presented in conferences organized by Department of Chemistry and Department of Physics of Arul Anandar College.

Dr. S. Valanarasu, Assistant professor, Department of Physics, AAC was awarded the Best Research Award by Raman Research Foundation on 30th September 2022 at international conference on recent advanced materials and applications jointly organized by Idhaya College for Women and Syed Ammal Arts and Science College.



On 18th July 2022, an MOU was Signed between Dept. of Physics, AAC and Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai in order to promote interdisciplinary research for PG students and Research Scholars.

An MOU was signed between the Department of Physics, AAC and Department of Physics Kalasalingam Academy of Research & Education on 21st September 2022 for mutual growth in research and academic activities.



DOCTORATES AWARDED

In the Academic year 2022 – 2023, four research scholars were awarded doctorates for their research thesis in various fields. The details of which is listed below.

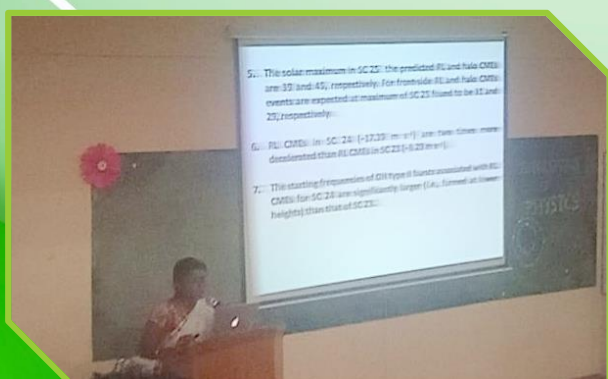


Dr. M. Ismail Fathima defended her thesis entitled “Investigation on the theory of photonic crystals based solar cells” under the supervision of Dr. K. S. Joseph Wilson on 27.05.2022, Dr. K. J. Sankaran, CSIR-Indian Institute of Materials and Minerals conducted the viva-voce examination.

Dr. K. Poovenderan defended his thesis entitled “Synthesis and characterization of some metal doped hydroxyapatite” under the supervision of Dr. K. S. Joseph Wilson on 23.01.2023, Dr. K. Sankaranarayanan of Alagappa University conducted the viva-voce examination.



Dr. I. Loyola Paul Raj defended his thesis entitled “Studies on metal ion doped nickel oxide thinfilms for photo-sensing application” under the supervision of Dr. S. Valanarasu on 21.03.2023, Prof. B. M. Nagabhushana of M.S. Ramaiah Institute of Technology conducted the viva-voce examination.



Dr P. Papakalaivani defended her thesis entitled “Study on some characteristics of Radio-loud CMEs associated with solar flares and Radiobursts” under the supervision of Dr. A. Shanmugaraju on 27.09.2022, Dr. E. Ebinezar Chellasamy of Kodaikanal solar observatory conducted the viva-voce examination.

The Viva-Voce's were conducted at the Physics Hall, Department of Physics, Arul Anandar College. Subject experts from various institutions were appointed by the Madurai Kamaraj University to conduct the Viva-Voce examination and served as the external examiners. The department congratulates the new doctorates.

RESEARCH PROJECTS

In the Academic year 2022 – 2023, Dr. B. Prakash and Dr. S. Sebastian were jointly awarded Minor Research Projects for their research proposals entitled “Doping Effect in Multipurpose Metal Oxide Nanocomposites and its Applications”. The research was funded with a sum of Rupees Seven thousand through seed money grants scheme of the Arul Anandar College – Management.

RESEARCH PUBLICATIONS

In the Academic year 2022 – 2023, twenty-one research articles were published and details of which are listed below,

Faculty	Journal - Publisher	Title of the paper	Details
Dr. K. S. Joseph Wilson	Mechanical Engineering	Performance Analysis of Various Substrates for H-slotted Microstrip Patch Antenna with DGS for Wireless Communications	7/6/470/974-5823/2022
	Materials Today: Proceedings	Amalgamation of Nano Hydroxyapatite Bioceramics for Electrical and Optical Studies	69/3/1413-418/2022
	Indian Chemical Society	Assimilation of manganese metal ion doped hydroxyapatite by Co-Precipitation technique	99/11/ 100779/2022
	Hybrid Advances	1-D Magnetic Photonic Crystal as Intermediate Reflective Layer in Tandem Solar Cells	1/100003/2022
	Applied Nanoscience	Design of an Innovative High-Performance Lead-free and Eco-friendly Perovskite Solar Cell	13/ 3289/2023
	Applied Surface Sciences Advances	Development of environmental friendly high performance Cs ₂ TiBr ₆ based perovskite solar cell using numerical simulation	15/100394/2023
	PriMera Scientific Engineering	High Gain Miniaturized Multi band Microstrip Patch Antenna Using Slot Cutting Techniques for C and X – band applications	2/4/2834 -2550/2023
Dr. A. Shanmugaraju	The Astrophysical Journal	Generation of Solar Coronal White-light Images from SDO/AIA EUV Images by Deep Learning	937:111/2022
	Solar Physics	Analysis of Front Side Halo CMEs and Their Solar Source Active Region and Flare Ribbon Properties	298:19/2023
Dr. S. Valanarasu	Surfaces and Interfaces	Improved optical and electrical properties of Fe doped ZnO nanostructures facilely deposited by low-cost SILAR method for photosensor applications	31/102071/2022
	Materials Science	Enhanced opto-electronic properties of X-doped (X = Al, Ga, and In) CuO thin films for photodetector applications	33/18786/2022
	Physica Scripta	Improvement in photo-device properties of CuO thin films for opto-electronic applications: effects of (Ni, Co) co-doping	97/125802/2022
	Applied Physics A	Influence of samarium doping on enhancing the photo-sensing capability of nebulizer-sprayed bismuth sulfide thin films	129/141/2023
	Optical Materials	Highly improved photo-sensing ability of In ₂ S ₃ thin films through cerium doping	137/113612/2023
Dr. S. Sebastian	Optical material	Novel Zn ₂ SiO ₄ : Nb phosphor for light emitting application	138/113632/2023
	Luminescence	Zinc Silicate Phosphor: Insights of X-Ray Induced and Temperature Enabled Luminescence	38/5/625-636/2023
	Physica Scripta	Photoluminescence and quantum yield behaviour of vanadium doped Zn ₂ SiO ₄ phosphors facilely synthesized by sol-gel method	98/3/035825/2023
Dr. M. Antony	Chemical Papers	Tuning the Magnetic Properties of Neodymium (Nd)-doped Cobalt Ferrite Thin Films Through Nebulizer Spray Technique	76, 6349–6358/2022
Dr. B. Prakash	Optical Materials	Highly improved photo-sensing ability of In ₂ S ₃ thin films through cerium doping	137/113612/2023
	Applied Physics A	Influence of samarium doping on enhancing the photo sensing capability of nebulizer-sprayed bismuth sulfide thin films	129/141/2023
	Surfaces and Interfaces	Improved optical and electrical properties of Fe doped ZnO nanostructures facilely deposited by low-cost SILAR method for photosensor applications	31/102071/2022

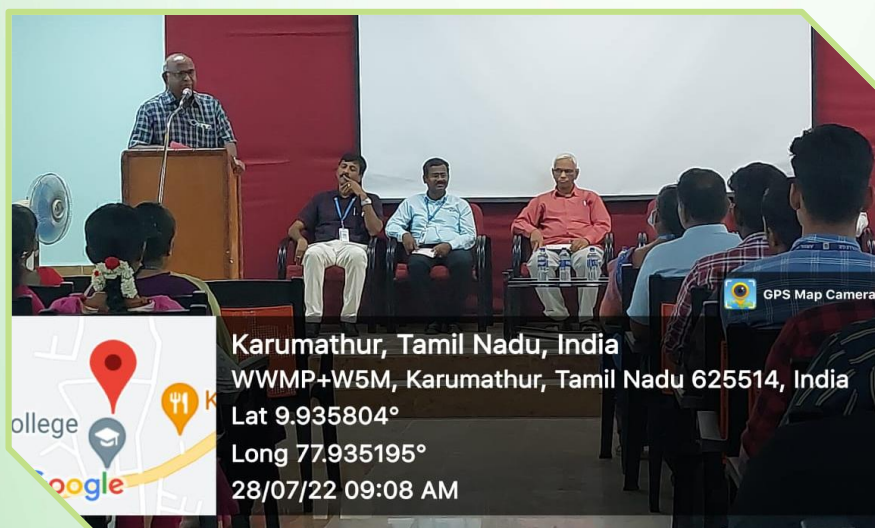
Conference proceeding with ISBN number: 978-93-94448-05-6 was published in International Conference on Recent Trends in Materials Science jointly organized by PG and Research Department of Physics, Arul Anandar College, Karumathur and Loyola Institute for Frontier Energy, Loyola College, Chennai. Our teaching faculty members published their research articles in the conference proceedings, the details are listed below.

Faculty	Title of the paper
Dr. K. S. Joseph Wilson	Simple Microstrip Patch Antenna for S-Band Applications at 2.40 GHz Frequency
	Design of Superconducting Nanocomposite photonic Crystal for Detection of Reproductive Hormones in Females
	Tandem Perovskite Solar Cell: A Review
	Analysis on Metamaterial based One-dimensional Photonic crystal
	A Comparative Study on the Optical Properties of the Natural Dyes Extracted from Leaves and Flowers of Hibiscus Rosa Sinensis
Dr. A. Shanmugaraju	Some Interplanetary Effects of Coronal Mass Ejections from the Sun
Dr. C.S.A. Raj	Electrochemical analysis of Green Inhibitors in Rain water medium
	Effect different solvent on Al-Doped ZnO for solar cell applications By NSP method
	Photoluminescence Properties of Tb ³⁺ ion doped Zn ₂ SiO ₄ phosphor for LED applications
	Inhibition efficiency of Clitoria Ternatea extract on the corrosion of Carbon Steel in sea water
Dr. S. Sebastian	Investigation of Zine Silicate Doped with Lanthanum for LED Applications
	Photoluminescence Properties of Tb ³⁺ ion Doped Zn ₂ SiO ₄ Phosphor for LED Applications
	Inhibition Efficiency of Clitoria Ternatea Extract on the Corrosion of Carbon Steel in Sea Water
	Investigation of Zine Silicate Doped with Lanthanum for LED Applications
	Photoluminescence Properties of Tb ³⁺ ion Doped Zn ₂ SiO ₄ Phosphor for LED Applications
Mrs. V. Buvaneswari	A Comparative Study on the Optical Properties of the Natural Dyes Extracted from Leaves and Flowers of Hibiscus Rosa Sinensis
Dr. B. Prakash	Investigation of Zine Silicate Doped with Lanthanum for LED Applications
	Photoluminescence Properties of Tb ³⁺ ion Doped Zn ₂ SiO ₄ Phosphor for LED Applications
	Dielectric Studies on Zn (0.99) Al (0.01) O Nanoparticles
	Synthesis and Characterization of Ultrasonicated Chitosan/Fe ₃ O ₄ Biopolymer Nano Composites
Dr. I. Inigo Valan	Fabrication of a Simple Setup using Natural Iron Oxide for Waste, Water Treatment

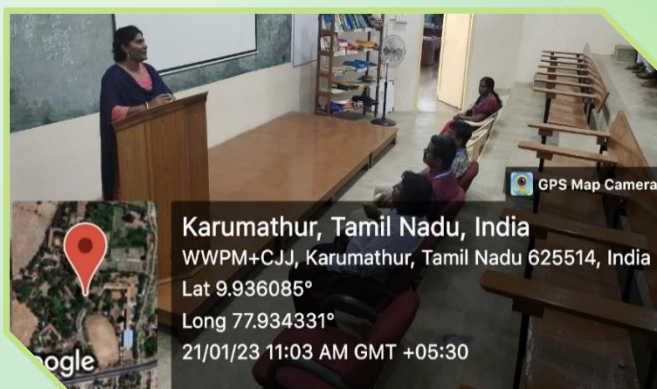
Articles by our staff members in other conference proceedings indexed with ISBN

Faculty	Title	Conference Name & Organizers	ISBN number
Dr. K. S. Joseph Wilson	Design of 1-D photonic crystals based sensor for detection of cancer cell	IEEE-5NANO 2023, VISAT Engineering College	978-1-6654-3726-4
	Comparing the performance of lead based and lead free inorganic perovskite solar cell using SCAPS - 1D	IEEE-5NANO 2023, VISAT Engineering College	978-1-6654-3726-4
	Dual band inverted U-slotted microstrip patch antenna for S-band and C-band applications	IEEE-5NANO 2023, VISAT Engineering College	978-1-6654-3726-4
Dr. S. Valanarasu	Naturally occurring Iron Oxides for photo-catalysis application	Expanding Frontiers in Chemistry, Department of Chemistry, AAC	978-9-3944-4802-5
Dr. C.S.A. Raj	Hydrothermal routed Rare Earth La ³⁺ doped SrSnO ₃ nanomaterial for bio imaging Applications	Expanding Frontiers in Chemistry, Department of Chemistry, AAC	978-9-3944-4802-5
Dr. S. Sebastian	Thermal Treatment of Zinc Silicate for Dosimeter Applications	International conference on crystal growth and spectroscopy, St. Joseph's College, Trichy	
	Hydrothermal routed Rare Earth La ³⁺ doped SrSnO ₃ nanomaterial for bio imaging Applications	Expanding Frontiers in Chemistry, Department of Chemistry, AAC	978-9-3944-4802-5
Dr. B. Prakash	Synthesis and Characterization of Ultrasonicated Fe ₃ O ₄ Encapsulated Chitosan Polymer Nanocomposites	Expanding Frontiers in Chemistry, Department of Chemistry, AAC	978-9-3944-4802-5
Dr. I. Inigo Valan	Naturally occurring Iron Oxides for photo-catalysis application	Expanding Frontiers in Chemistry, Department of Chemistry, AAC	978-9-3944-4802-5

SEMINARS / CONFERENCES / WORKSHOP



Department of Physics in collaboration with Department of Chemistry of Arul Anandar College jointly organized a workshop on materials science on 25th July 2022 to promote interdisciplinary research for PG students and Research Scholars. Dr. N. Somanathan, Former Director, Centre for Leather Research Institute, Chennai, addressed the gathering and nurtured the young minds towards research.



A workshop on Crystal Growth was organized by the Department of Physics, on 5th October 2023. Dr. N. Rajesh from GTN Arts College, delivered a lecture and educated the students on the techniques to grow crystals.

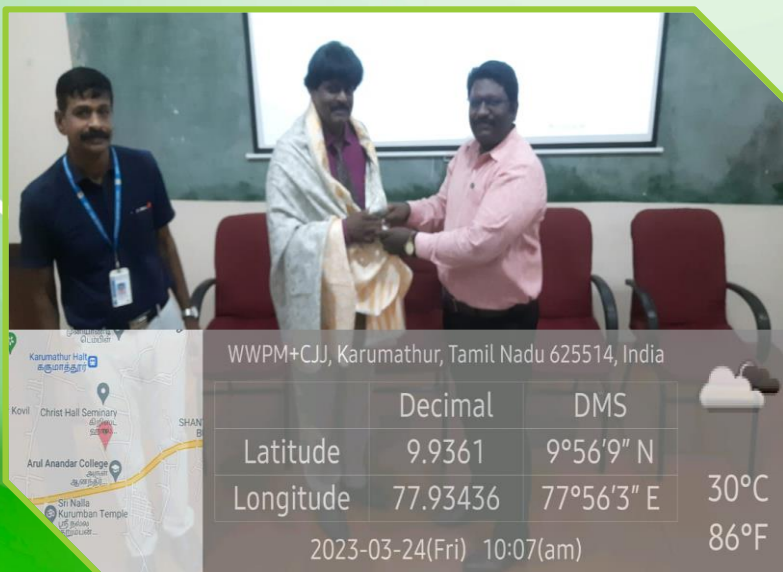
A workshop on Competitive physics exams was conducted on 21st January 2023 for the outgoing UG and PG students. Dr. M. Kartika, Assistant Professor, Department of Physics, Government Polytechnic college, Aranthangi, delivered the lecture. As a part of the lecture, the students were asked to solve simple physics questions. The workshop gave an exposure to the students to attend competitive physics exam.



A workshop on higher studies & carrier opportunities in research institutions worldwide (NASA, etc.) was organized for UG and PG students on 2nd February 2023. Dr. Suresh Karupaiah, SCOSTEP Visiting Scholar to NASA, USA gave guidance to the students. The workshop introduced the various research opportunities available in the field of physics.



International Conference on Recent Trends in Materials Science (RTMS 2023) was conducted during 9th - 10th March, 2023. Participants from various institutions across the nation participated in the conference. International researchers across the globe addressed the participants and shared their knowledge. Through the conference a conference proceeding was released which comprises of research articles from recent research topics of various research fields in physics.



Awareness cum Hands-on Training on Robotics and Electronic Gadgets" was conducted on 24th March, 2023 for UG & PG students. Mr. V. Rajamanikam, Proprietor, Bits'n'Watts embedded solutions, Chennai, gave hand-on-experience on various micro-controller based advanced equipments.



ASSOCIATION ACTIVITIES

The Physics Association is one among the most active association in Arul Anandar College. Many programmes were conducted in the academic year 2022-2023 by the association.



Orientation cum Freshers Day celebration was conducted on 1st September, 2022 for the first year U.G and PG students. Dr. C.S.A. Raj, Vice-president, Physics Association welcomed the gathering, Dr. K. S. Joseph Wilson, Head, Department of Physics, introduced the department and its various activities to the new students. Rev. Dr. U. Godwin Rufus S.J., Principal Arul Anandar College, blessed and addressed the gathering and motivated the students to learn by questioning. Mr. S. Manoj Aravind, Student Secretary, Physics association proposed the vote of thanks.

On 8th September 2022, Dr. Ebenezer Chellasamy, Scientist - Indian Institute of Astrophysics, Solar Observatory, Kodaikanal, delivered a guest Lecture on "The Mysteries of the Universe - Known and Unknown"



Dr. Syed Ibrahim, Post-doc fellow, IIA, alumnus of our department greeted the gathering and motivated the students to pursue research.

Dr. A. Shanmugaraju, Assistant Professor, Department of Physics, introduced the speaker to the gathering and Dr. K. S. Joseph Wilson, Head, Department of Physics, coordinated the event. The UG and PG students actively participated in the event.





Rev. Dr. John Pragasam S.J., Rector, Arul Anandar College, initiated steps to organize all the science departments and formed the interdepartmental research by Science Forum in Arul Anandar College.

The Physics association of the Department of Physics, coordinated the inauguration of the Science Forum in AAC campus on 14th September 2022. Several research ideas were shared in the initial meeting of the Science Forum from the science faculty of various departments of AAC.

Rev. Dr. Godwin Rufus. S.J., presided the Science Forum and directed the science departments to collaborate in research.

In view of International Space Week, an Online Quiz Programme was organized on 8th October to promote awareness on space research. The UG and PG students of Department of Physics actively participated in the event. Dr. A. Shanmugaraju organized the programme and Dr. K. S. Joseph Wilson, Head, Department of Physics, motivated the participants of the Online Quiz Programme.



Physics Association released the 2nd issue of the Physics News Letter on 21st December 2022 during the Campus Festival - 2023 of Arul Anandar College. Rev. Dr. Godwin Rufus S.J. Principal, AAC, released the newsletter. Mr. P. Ayyappan, Member of Legislative Assembly (Usilampatti constituency), Government of Tamil Nadu received the first copy of the newsletter, Ms. Rohini Molleti, Actress & Human Rights activist received the second copy of the newsletter. Rev. Dr. John Pragasam, S.J., Rector, AAC, Rev. Dr. Gilbert Camilus S.J., Secretary, AAC, Dr. A. Sundararaj, Deputy Principal, AAC and Dr. M. Sajan Joseph, Department of Mathematics, AAC were present during the event.



Intra Departmental Competitions were organized for the UG & PG students on 12th January 2023, in order to promote scientific and cultural activities of the UG & PG students of the Department of Physics. Students actively participated. The event was organized by the Physics association, Dr.K.S.Joseph Wilson, Head, Department of Physics, conducted the events and Dr.A.Shanmugaraju, Dean - Academics, AAC and Dr. S. Valanarasu, IQAC - Coordinator, AAC, Dr. C.S.A. Raj, Vice president, Physics Association, and Mr. S. Manoj Aravindh, Student secretary, Physics Association were present. Dr. C.S.A. Raj proposed the vote of thanks.



PHYSAAC-2023, an intercollegiate competition was held on 23rd February, 2023. More than 100 students from various colleges participated in the event. Rev. Dr. U. Godwin Rufus S.J., Principal, AAC, blessed and chaired the event. Dr. B. Sundaresan, Head, Department of Physics (PG), ANJA College, Sivakasi delivered the chief-guest address to the gathering. The chief-guest promoted the recent advancements in the materials science and in physics and emphasized the students to involve in research. Dr. K.S. Joseph Wilson, Head, Department of Physics, and the President of Physics association headed the event. Many scientific and cultural competitions were conducted, participants from various colleges actively participated and won the prizes. The students of Lady Doak College, Madurai, won the overall championship of PHYSAAC-2023.

STAFF ACTIVITIES

Our faculty members visited various academic institutions to deliver guest lecturers on their research area and served as resource persons. The details are listed below,

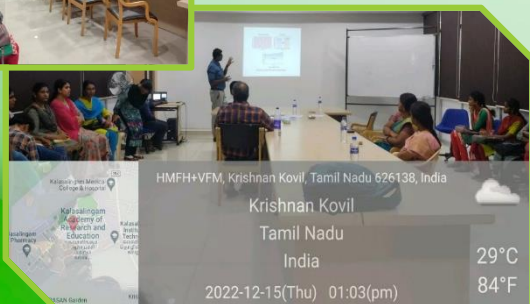
Name of the Staff	Resource Person	Topic	Name of the Institution and Place/Webinar/Online FDP	Date
Dr. K. S. Joseph Wilson	Resource Person	Photonic Crystals	National College, Tiruchirappalli.	08.02.2023
	Convener	Recent Trends in Materials Science	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09 & 10.03.2023
	Key Note Speaker	Nano-photonics perspectives and challenges	IEEE - 5NANO 2023, VISAT Engineering College, Ernakulum, Kerala	27 - 28.03.2023
Dr. A. Shanmugaraju	Chair Person	Condensed Matter Physics	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09.03.2023
	Resource Person	Wonders of the Sky	The Madura College (Autonomous), Madurai	21.03.2023
	Resource Person	Universe	Government Arts and Science College, Andipatti	
Dr. S. Valanarasu	Resource Person	Thin Films for Sensors Application	Ananda College, Devakottai	05.09.2022
	Resource Person	Thin Films for Sensors Application	Kalasalangam Academy of Research and Education, Krishnankovil	15.12.2022
Dr. J. Sophia	Chair Person	Condensed Matter Physics	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09.03.2023
Dr. C.S.A. Raj	Participant	Refresher Course Recent Advances in Physics of Materials	UGC-Human Resource Development Centre, Madurai Kamaraj Univeristy	7 - 20.10.2022
	Resource Person	Thin Films & its applications	Bon Secours Arts and Science College for Women, Dindigul.	24.02.2023
	Chair Person	Condensed Matter Physics	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09.03.2023
Dr. S. Sebastian	Chair Person	Photonic crystals	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09.03.2023
Mrs. V. Buvanewari	Resource Person	Do not get trapped in the black hole - Encircle to ESCAPE	Arul Anandar College - Orientation programme on "Personality Development" organized by Department of Human Excellence,	13.10.2022
	Chair Person	Light harvesting materials	Arul Anandar College -International Conference on the Recent Trends in Materials Science	10.03.2023
	Resource person (Observer)	Role of Inner Voices in Effective Communication Skill	Arul Anandar College - Speak Park organized by Department of English, Arul Anandar College	16.03.2023
Dr. B. Prakash	Chair Person	Materials science	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09.03.2023
	Resource Person	Advanced Smart Materials for Engineers	Dept of Humanities & Sciences, Sri Venkateshwara College of Engineering & Technology, Chittoor, Andhra Pradesh	06.07.2022
Dr. I. Inigo Valan	Chair Person	Thinfilms for sensor application	Arul Anandar College -International Conference on the Recent Trends in Materials Science	09.03.2023
	Resource person (Observer)	Importance of Oratory skills	Arul Anandar College - Speak Park organized by Department of English, Arul Anandar College	21.01.2023

Our faculty members participated in various research and academic activities and the details are listed below,

Name of the staff	Name of the conferences/ Workshops/Seminars/Webinars	Name of the institution and Place/Webinar	Date/ Period
Dr. K. S. Joseph Wilson	South Asia Level JHEASA (Jesuits in Higher Education Association South Asia) conference	St. Aloysius College, Mangalore, Karnataka.	26- 28.12.2022
Dr. M. Antony	International Webinar on Innovations in Materials Processing	Bharat Institute of Engineering & Technology & Indian Ceramic Society, Hyderabad	20.08.2022.
Mrs. V. Buvanewari	State Level Workshop on "Outcome Based Assessment and Evaluation"	The Standard Fireworks Rajaratnam College for Women (Autonomous), Sivakasi.	14.02.2023
Dr. B. Prakash	Webinar on "Advancements in Graphene based 2D materials"	Dept of Physics, St. Joseph's College (Autonomous), Trichy	30.01.2023
	Webinar on "Nanomaterials for Novel Applications"	Dept of Physics, Ramco Institute of Technology, Rajapalayam	13.01.2023
	International Webinar on "Solar Photovoltaics for Sustainable Future"	Bharat Institute of Engineering & Technology & Indian Ceramic Society, Hyderabad	24.12.2022
	One Day International Webinar on "Advanced Functional Materials"	PG & Research Dept of Physics, Gonzaga College of Arts and Sciences for Women, Krishnagiri	28.09.2022
	Online Workshop on "Bridging Sciences with Technology"	Dept of Physics, SRM Institute of Science & Technology, Ramapuram Campus, Chennai	02.09.2022
Dr. I. Inigo Valan	National Workshop on Gamma ray spectroscopy	Dept. of Physics, The American College, Madurai	26.08.2022



Dr. K. S. Joseph Wilson, delivering key-note address in IEEE - 5NANO 2023 at VISAT Engineering College



Dr. S. Valanarasu delivering a lecture on thin films and application at Department of Physics, Kalasalingam University

Dr. C.S.A Raj, delivering a lecture on thin films and application at Department of Physics, Bon Secours College

STUDENT ACTIVITIES

Our Under graduate students Ms. M. Swetha, Mr. S. Manoj Aravindh, Ms. L. Saleth Nisha, Mr. A. Joseph Daniel attended "One-day national workshop on computerized physics experiments" organized by the Department of Physics, The American College, Madurai on 05th September 2022.

Mr. A. Joseph Daniel, II B.Sc., Physics student was elected as the secretary of All India Catholic University Federation of Arul Anandar College for the academic year 2022-2023.

Our student, Mr. J. Harish, I B.Sc., Physics student attended a one-day workshop on theater arts, organized by Department of English on 01st February 2023.

Our under graduate students J. Sania, M. Dharani, D. Sivanesh, P.J. Sam Alexander, D. Dinesh Kumar, spoke in the event "Speak Park" conducted by English Literary Association of Department of English, AAC.

Mr. A. Vasanth and Mr. S. Julius Idhaya Ruben of II M.Sc., Physics, were selected for SERB sponsored workshop on Development of cathodic materials for micro-plasma generation organized by CSIR-Institute of Minerals and Materials Technology, Bhubaneswar, Odisha from 11th July to 10th August, 2022.



Mr. A. Vasanth of II M.Sc., Physics was selected for in 18 days Refreshar and Preparative Winter School programme in Physics at IISER, Thiruvananthapuram from 05th December to 22nd December, 2022.

Ms. S. Imayarasi, Mr. P. Kaviparani, Ms. M. Sobiya, Ms. J. Pradeepa, Ms. M. Dharani, Mr. S. Muthukumar, Ms. G. Kartheswari, of III B.Sc. Physics, attended National Graduate Physics Examination - 2023 conducted by Indian Association of Physics Teachers on 22.01.2023 and secured the Centre top 10 % position.

Sr. P. Arockia Michael Mercy, Research Scholar of our department participated and presented her Ph.D., thesis in 66th DAE Solid State Physics Symposium organized by Bhabha Atomic Research Centre, Mumbai on 18th - 22nd December 2022.



Mrs. P. Vijayalakshmi, Research Scholar of our department attended an online training Programme on Implementation of data science application using python organized by Electronics and ICT academy, National Institute of Technology, Warangal and CMR Engineering College, Hyderabad during 11th to 21st July 2022. She also attended a one-day orientation Programme on research methodology organized by IQAC, AAC on 07th October 2022.

INDUSTRIAL VISITS

On 17th September 2022, a field trip to Kodaikanal Solar Observatory, Kodaikanal was arranged for the Under-Graduate and Post-Graduate students of Department of Physics, Arul Anandar College.



An industrial visit to National Laboratory -Central Electrochemical Research Institute (CECRI), Karaikudi was arranged on 26th September 2022 for the Post-Graduate students of Department of Physics, Arul Anandar College.



An academic tour to VSSC, Thumba and ISRO, Trivandrum, was arranged to the final year UG and final year PG students of Department of Physics, Arul Anandar College, on 22nd and 23rd March 2023.



Our PG students attended a "One Day Workshop on Materials Characterization Techniques", at Kalasalingam University, Krishnankoil on 14th December 2022.





Physics Alumni is one of the important and active alumni associations of the college. The alumni meeting was organized on 5th October 2022. Many notable teachers, professors, employees of various organizations and industry proprietor belonging to Physics Alumni attended the meeting. The financial sponsorship, academic support and educational collaborations were discussed in the meeting.

As a part of the Physics Alumni meeting, Alumni Scholarship is given to the economically marginalized students. Dr.K.S.Joseph Wilson, Head, Department of Physics, chaired the meeting and delivered the inaugural address, Dr. I. Kulandaisamy (Rtd.), Former Head, Department of Physics, AAC, delivered the guest-of honor speech to the gathering. Mr. K. S. Narayanan, Head-master, Sethupathi Higher Sec. School, Madurai and Mr. A. Motcharaj, Physics Teacher, St. Mary's Higher Sec. School, Dindigul, shared their study experiences in AAC and motivated the students to achieve their target.



Education is not the learning of facts, but the training of the mind to think.

- Albert Einstein



PG & RESEARCH DEPARTMENT OF PHYSICS
ARUL ANANDAR COLLEGE (*Autonomous*)



Affiliated to Madurai Kamaraj University
Re-accredited with CGPA of 3.15 by NAAC
DST – FIST Awarded College

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