

# Dr.SK.Fakruddin Babavali



**Designation** : Assistant Professor  
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**Contact at** : S&H-I 306, Emp.Id: 90011, Department of Physics,  
V.R.Siddhartha School of Engineering  
Siddhartha Academy of Higher Education(SAHE),  
An Institution Deemed to be University,  
Kanuru, Vijayawada-07(A.P), India.

## Education

- ❖ **Ph. D (Physics) with Good Appreciation**  
2017, RU (A.P.State Govt University),Kurnool,A.P.,India.
- ❖ **M.Phil (Physics) Completed in First Class**  
2007, Periyar University(Tamilnadu State Govt University),Tamilnadu,India.
- ❖ **PGDCA Completed in First Class**  
2006,Recognised by Andhra Pradesh Board of Computer Education.
- ❖ **M.Sc (Physics) Completed in First Class with Distinction**  
2005, Acharya Nagarjuna University (A.P.State Govt University),Guntur,A.P.,India.
- ❖ **B.Sc (Physics) Completed in First Class with Distinction**  
2003, Acharya Nagarjuna University (A.P.State Govt University),Guntur,A.P.,India.

## Experience

Period	Designation	Institution / Organization
2007-Till date	Assistant Professor	V.R.Siddhartha School of Engineering, SAHE-Deemed to be University,Vijayawada-07(A.P),India
2005-2007	Lecturer for UG level	A.M. College,Guntur

## Research Interests

### Broad Area of Research :

Acoustical ,Thermodynamical & IR Spectroscopic Studies,  
Material Science Related -Molecular Interaction Studies (Ultrasonics),  
Nano Oxide and Carbon Nano Spherical Structure Studies, Antibacterial functional,  
Physical and Spectroscopic Properties in Nanomaterials

## Honors and Awards

- Best Researcher award received for 2019 from ACS Research Society (USA & UK) on 8<sup>th</sup> March 2020.
- Received Appreciation from Commissioner of Police, Vijayawada for the Sincere and Dedicated Service during Krishna Pushkaralu-2016.
- Best Paper presentation award received by Dr.G.Srinivas (Jt.Secretary, UGC Southern Region) in National Seminar organised by A.C.College , Guntur on 2<sup>1st</sup> & 2<sup>2nd</sup> Oct 2011.

## Courses Taught

- **UG-Engineering Physics-EMF Theory**  
Electrostatics,Magnetostatics,Basics of Electronics,Types of electric Magnetic materials and Time varying fields.
- **UG-Applied Physics**  
UG-Quantum Computing, Quantum Mechanics, Semiconductors, Lasers, Fibre Optics, Holography and Nanotechnology.
- **UG-Physics for Engineers**  
Crystallography,Acoustics,Thermal Performance,Engineering Materials and Nanotechnology
- **UG-B.Sc**  
Waves & Oscillations,Optics & Thermodynamics,Electricity,Magnetism & Modern Physics

## Research Profile

**Publications : Total:56 (SCI+Scopus = 50 and Others/UGC : 06)**

The recent publications and research contributions can be viewed from the following URLs

Google Scholar	<a href="https://scholar.google.co.in/citations?user=hd21Ba0AAAAJ">https://scholar.google.co.in/citations?user=hd21Ba0AAAAJ</a>
Scopus	<a href="https://www.scopus.com/authid/detail.uri?authorId=57188719988">https://www.scopus.com/authid/detail.uri?authorId=57188719988</a>
ORCID	<a href="https://orcid.org/0000-0002-3462-2575">https://orcid.org/0000-0002-3462-2575</a>
Publons	<a href="https://publons.com/search/?search=FAKRUDDIN">https://publons.com/search/?search=FAKRUDDIN</a>
Research Gate	<a href="https://www.researchgate.net/profile/Dr_Fakruddin">https://www.researchgate.net/profile/Dr_Fakruddin</a>

## Recognized as Research Supervisor

S.No	Department and University
01	Department of Physics, V.R.Siddhartha School of Engineering, Siddhartha Academy of Higher Education (SAHE)-Deemed to be University Vijayawada-520007, A.P.,India.

## Administrative Roles

S.No	Role	Institution	Duration	Responsibilities
1.	Course Coordinator	VRSEC	2018-till date	Course Planning-BOS meetings, Course Materials, Assessment and Evaluation
2.	ISO Coordinator	VRSEC	2009-till date	Documentation, File Management, Record Keeping and Quality Assurance
3.	Physics Lab In-charge	VRSEC	2014-2019	Lab Management, Budgeting and Procurement, Equipment maintenance, Lab Organization, Lab Curriculum Development
4.	NBA/NAAC/ IQAC /UGC File work Process	VRSEC	2008-till date	Documentation, File Management, Record Keeping and Quality Assurance
5.	Proctor and Class Teacher	VRSEC	2007-till date	Academic Guidance, Mentorship, Attendance Monitoring, Collaboration with Teachers and Parent-Teacher Meetings
6.	R & D Coordinator	VRSEC	2022-2024	Documentation, File Management implementation of R&D strategies, Coordinating faculty in the initiation of research related activities
7.	Administrative manual framing	VRSEC-SAHE	2024	Documentation and framing work
8.	Curriculum development UG/Ph.D	VRSEC	2007-till date	Member in Designing Course Structure, Learning Objectives and Content Development
9.	Vigilance/ Anti ragging/ Discipline committee	VRSEC	2014-2022	Member in Maintaining Discipline, Informing the students about Rules and regulations
10.	Member in College Annual Day, AFOSEC committee	VRSEC	2008-till date	As a member of event activity planning Coordination, Activity Management towards Student Participation
11.	Academy House Journal framing	VRSEC	2011-2025	Documentation and framing work
12.	Member in Display Sign boards	VRSEC	2024-till date	Establish and review policies in allotted block to ensure they remain relevant to the Institution's vision and Mission.

## Certifications/MOOC Courses Completed

S.No.	Title	Platform	Duration	Year
1.	Certificate Course on Semiconductor Physics	Coursera	12 weeks	2020
2.	Certificate Course on Molecular Spectroscopy	Coursera	8 weeks	2021
3	Certificate Course on Quantum Mechanics	Coursera	8 weeks	2020
4	Certificate Course on Nanotechnology	Coursera	8 weeks	2021
5	Certificate Course on the Science of Well-Being	Coursera	12 weeks	2025
6	Certificate on National Education Policy (NEP-2020)	UGC	2 weeks	2024

## Funded Research Projects

On-going	00		
Applied	01		

## Patents: 04

S.No	Title	Status	Application No.	Year
1.	Enhanced Physical and Photoelectrochemical Properties of Nanostructured CdS Thin Films for Next-Generation Optoelectronic Devices	Published	202541013707	2025
2	Nanoparticle-Based Delivery Systems for Optimizing Plant Growth and Development in Sustainable Agriculture	Published	202441072012	2024
3	Enhanced Electrical Conductivity and Optical Properties in Graphene-Carbon Nanotube Hybrid Films for Flexible Display Technology	Published	202341049903	2023
4	A hybrid energy harvesting system with improved solar efficiency	Published & under Grant Hearing status	202141028036	2021

## Invited / Guest Talks

No. of Guest Talks	02
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## Professional Service / Reviewer

- Reviewer in Journal of Molecular Liquids, Elsevier (Impact Factor : 6.63)
- Reviewer in Arabian Journal of Chemistry, Elsevier (Impact Factor : 4.039)
- Reviewer in KIJOMS (Karbala International Journal),Elsevier-Scopus (Impact Factor : 4.561)
- Editorial Board Member in Ariviyal Journal Publications
- Reviewer in Rasayan Journal of Chemistry, Scopus
- Reviewer in Material Science Research India , UGC-Approved

## Professional Development Activities - Participations

Faculty Development and Training Programmes	24
International / National Level Seminars	12 / 12
International / National Level Conferences	15 / 15
Workshops	24
Instructor Led / Self-Paced Courses	04
Webinars	15

## Professional Bodies Membership Details

LM-87779	The Indian Society for Technical Education (ISTE)
LMB-4092	Materials Research Society of India (MRSI)
LM 12877	Indian Physics Association (IPA)
Life Member	Indian Aerosol Science and Technology Association (IASTA)
LM-266	The Indian Thermodynamic Society(ITS)

(Dr.SK.Fakruddin Babavali)