

Dr. ARAVIND S. BENNAL

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RESEARCH PUBLICATIONS SCITATIONS

Scopus Scholar Citations: <http://www.scopus.com/authid/detail.uri?authorId=8986174100>

Google Scholar Citations: <https://scholar.google.co.in/citations?user=RgTZuAEAAAAAJ&hl=en>

Teaching Experience:

1. Worked as a Guest Lecturer in Karnatak Science College, Dharwad during the academic years 2003-07. (4 years)
2. Worked as a Guest Lecturer in Dept.of Studies in Physics, Karnatak University Dharwad during the semester 2005- 2006.
3. Worked as a Lecturer in BVB College of Engineering and Technology during the academic year 2007-11.
4. Worked as an Assistant professor in BVB College of Engineering and Technology during the academic year 2011 -2018.
5. Worked as a Guest faculty in IIIT Dharwad for the 2nd semester in the academic year 2015-16.
6. Working as an Assistant Professor in the Dept. of Studies in Physics, Karnatak University Dharwad from 2018 to till date. (Appointed on 13-07-2018)

Research Experience:

Ph.D. degree awarded by K U Dharwad in April 2008 on the Topic “**Interaction of gamma photons with matter: Study of K shell fluorescence parameters**”.

Research Publications:

1. Research paper entitled “Measurement of K x-ray fluorescence parameters” Published in American Journal of Physics (AJP). (Vol.73, No. 5, May 2005) (AIP publication).
2. Research paper entitled “Measurement of K-L radiative vacancy transfer probabilities for Ta, Au and Pb in a 2π geometrical configuration” published in Nuclear Instruments and Method's B: (Vol.247 161-165 2006) (Elsevier publication)
3. Research paper entitled “Measurement of K shell absorption and fluorescence parameters for the elements Mo, Ag, Cd, In and Sn using a weak gamma source” published in the Journal of Physics B: At.Mol.Opt.Phys. 40, (2007) 2189 (IOP publication)
4. Research paper entitled “Determination of K to L shell total vacancy transfer probabilities using a weak gamma source: an alternative method” published in Journal of Quantitative Spectroscopy and Radiative Transfer 111 (2010) 1363–1371 (Elsevier publication)

5. Research paper entitled "Determination of K–L vacancy transfer probabilities of some 3d elements using synchrotron radiation" published in Canadian Journal of Physics. Can. J. Phys. 93: 1–5 (2015) dx.doi.org/10.1139/cjp-2014-0552.
6. Research paper entitled "Chemical Sensitivity of K-L Vacancy Transfer Probability in compounds of 3d atoms using Synchrotron Radiation" published in Chemical Physics Letters 634 (2015) 271–276(Elsevier publication)
7. Research paper entitled "Economical biosynthesis of silver nanoparticles using fruit waste" published in Journal of Chemical and Pharmaceutical Sciences, 9 Issue 3 (2016) 2306-2311.
8. Research paper entitled "Effect of precursor concentration on Zinc Sulphide nanomaterial prepared by Co-precipitation method" published in Advanced Materials Letters www.amlett.com, www.vbripress.com/aml, DOI:2017 2(10)654-661
9. Research paper entitled 'Influence of pH on optoelectronic properties of zinc sulphide thin films prepared using hydrothermal and spin coating method.' Published in Mater. Res. Express 5(2018) 045201.
10. Research paper entitled 'Determination of Thermal Neutron Flux by Measuring Gamma Radiations with High- and Low-Resolution Detectors, published in J.Nucl.Phys.Mat.Sci.Rad.A.Vol.No.2. Feb.2019.pp 178-183.
11. Research paper entitled 'Study of the solid-state effect on L₃ subshell fluorescence yield for high Z targets using Indus-2 synchrotron radiation' published in Canadian Journal of Physics 98(5), 470-473,2020.
12. Research paper entitled ' Measurement of L subshell fluorescence yield ratios of some high Z elements by selective excitation method' published in X-Ray Spectrometry 50 (1), 37-44,2021.
13. Research paper entitled 'Determination of effective atomic number of acetate compounds using Am-Be neutron source 'published in Karnatak University Journal of Science 52, 70-75, 2021.

Workshop and Seminar attended:

1. attended and presented a paper entitled "K x-ray intensity ratios in a 2Π geometrical configuration" in a National Symposium on Radiation and Photochemistry (NSRP- 2005).
2. attended on Introductory workshop on "ASTRONOMY AND ASTROPHYSICS" (INSTRUMENTS AND OBSERVATIONS) organized by Department of Physics, Karnatak University, Dharwad in December 5-7, 2005.
3. attended Seminar on "TRENDS IN CONDENSED MATTER PHYSICS" organized by Department of Physics, Karnatak University, Dharwad in March 8-9, 2006. Workshop on "NANOMATERIALS AND EXPERIMENTS IN PHYSICS" organized by Department of Physics, B.V.Bhomaraddi college of Engineering and Technology,Hubli in August 5, 2006.
4. attended Two-Day International Collaquim on "NANOTECHNOLOGY" organized by S.D.M. College of Engineering and Technology Dharwad, Karnatak in July 8-9, 2008 at Naveen Hotel Hubli.
5. attended one-day National workshop on 'NUCLEAR ENERGY FOR THE 21ST CENTUARY' organized by Department of Physics, SDMCET, Dharwad in 27th August 2009.
6. attended and presented a conference paper on "INFLUENCE OF CHEMICAL ENVIRONMENT ON K SHELL FLUORESCENCE YIELD" for the 2nd DAE-BRNS SYMPOSIUM ON ATOMIC, MOLECULAR AND OPTICAL PHYSICS in association with INDIAN SOCIETY FOR ATOMIC AND MOLECULAR PHYSICS held in Karnatak University Dharwad, February 22-25, 2011.
7. attended three day 'INTERNATIONAL CONFERENCE ON OPTICAL ENGINEERING' (ICOE-2012) at VTU Belgaum on 26-28 July 2012.

8. attended the three day national seminar on 'ADVANCES IN QUANTUM MECHANICS' held at Govt. Engineering College, Kannur during December 13-15, 2012.
9. attended the '2ND NATIONAL SEMINAR ON PHYSICS OF MATERIALS BASED DEVICE FABRICATION 2013' (NSPM-MDF 2013) held at Department of Physics, Shivaji University, Kolhapur during January 4-5,2013.
10. attended the Tequip-II sponsored three days workshop on "Recent Advances in Thin film Technology" from 19-21 December 2013 organized by Department of Physics, Basaveshwar Engineering College, Bagalkot.
11. attended the UGC sponsored "national level Lecture workshop on Novel materials" on 13-14 January 2015, organized by Department of Physics, Shri Kadasiddeshwar Arts College and H.S.Kotambri science institute, Hubballi.
12. attended the Tequip sponsored one day workshop on "Research Philosophy" on 6th March 2015 organized by at B.V. Bhoomaraddi College of Engineering and Technology, Hubballi.
13. attended the Tequip-II sponsored one day faculty development programme on "Hands on Training on Thin film Coating and Lithography Techniques" on 6th November 2015 jointly organized by Department of Electronics and Communication and Department of Physics, Basaveshwar Engineering College, Bagalkot.
14. presented a conference paper on 'optoelectronic properties of nanostructured zinc sulphide' at 4th International conference on advanced nanomaterials and Nanotechnology on December 8-11, 2015, organized by IIT, Guwahati.
15. presented a conference paper on 'Effect of precursor concentration on Zinc Sulphide nanomaterial prepared by Co-precipitation method'. International Conference on Materials Science & Technology 01st-04th March, 2016 Conference Centre, University of Delhi, India
16. presented a conference paper on Biosynthesis of silver nanoparticles using fruit peels extract and their use as an ant-bacterial agent' iconstem Chennai, 30-31 March 2016.
17. participated in INUP Familiarization workshop on Nanofabrication Technologies held at IIT Bombay, Mumbai during May 25-27, 2016.
18. presented and participated a paper in 28th DAE-BRNS National Laser symposium (NLS 28) held at VIT Chennai during 8-11 January 2020.
19. Participated in the 5th Annual conference of Nuclear Medicine Physicists Association of India (13th -14th February 2021).
20. presented a conference paper on 'Measurement of mass-gated neutron multiplicity for the $^{12}\text{C} + ^{238}\text{U}$ reaction at 45.6 MeV excitation energy' in a DAE Symposium paper no 330 held during, December 01 - December 05, 2021.

Students Research Projects:

1. guided **E-green, E-journal project** of Physics lab experiments and implemented in college (BVBCET, Hubballi) level with association from IS Department of BVBCET Hubballi with the financial assistance from TEQUIP in academic year 2013-16.
2. **guided** a REU (Research Experience for Undergraduates) student project on the topic 'Biosynthesis of silver nanoparticles using fruit peels extract and their use as an ant-bacterial agent'.
3. **guided** a student project on designing the Physics Department website for the KLE Technological University, in the academic year 2015-16.
4. guided /guiding a student project (MSc students batch)

Project Title	Student Name With Registration No.	Academic Year
Verification of Klien Nishina formula using Compton Scattering for different Z values	Jyoti Vadageri 17s16049	2018-19

Verification of Klien Nishina formula using Compton Scattering for different Z values	Kavit Devadiga 17s16051	2018-19
Verification of Klien Nishina formula using Compton Scattering for different Z values	Manjunatha 17s16059	2018-19
Verification of Klien Nishina formula using Compton Scattering for different Z values	Nidhi Deshbandari 17s16064	2018-19
Mass Attenuation Coefficient of Beta Radiation using Magnetic Spectrometer	Shekanna H 18s16086	2019-20
Mass Attenuation Coefficient of Beta Radiation using Magnetic Spectrometer	Shivukumar Pradhani 18s16087	2019-20
Mass Attenuation Coefficient of Beta Radiation using Magnetic Spectrometer	Shridhar Misale 18s16089	2019-20
Mass Attenuation Coefficient of Beta Radiation using Magnetic Spectrometer	Vrinda Dafedar 18s16101	2019-20
Elemental Analysis of Medicinal Plants –Banyan Tree (Leaves)	Shilpa Doddamani 19s16066	2020-21
Elemental Analysis of Medicinal Plants–Banyan Tree (Leaves)	Sindhu Korishettar 19s16073	2020-21
Elemental Analysis of Medicinal Plants–Banyan Tree (Leaves)	Vijayalaxmi Devagiri 19s16086	2020-21
Elemental Analysis of Medicinal Plants-Neem Tree (Leaves)	Siddu Patil 19s16072	2020-21
Elemental Analysis of Medicinal Plants-Neem Tree (Leaves)	Suman Kwati 19s16077	2020-21
Elemental Analysis of Medicinal Plants-Neem Tree (Leaves)	Suprada Chouinishi 19s16078	2020-21
Elements Detection –Soil Composition	Saiprasad M Shet 20s16077	2021-22
Elements Detection –Soil Composition	Shifana I Khan 20s16078	2021-22
Elements Detection –Soil Composition	Shriganesh B Patagar 20s16080	2021-22
Elements Detection –Industrial Waste and Water	Siddalingesh C 20s16081	2021-22
Elements Detection –Industrial Waste and Water	Sindu Anandihalli 20s16082	2021-22
Elements Detection –Industrial Waste and Water	Vijayalakshmi V Badigar 20s16095	2021-22

Guiding for the Phd:

	Name	Reg.No and University	Topic	Year	Position
1	Sheetal Thakur	SC/2018-19/1050	Complete, Incomplete Fusion and Projectile Like Fragment measurements in $^{13}\text{C} + ^{124}\text{Sn}$ system	2018	Supervisor
2	Manjunath H.	SC/2020-21/1227	Study of Trace elements	2021	Supervisor

Academic Activities:

1. Course coordinator, for Engineering Physics in BVBCET, Hubballi during academic year 2010-2012.
2. Departmental AMEC coordinator, in BVBCET, Hubballi during academic year 2012-2013.
3. Departmental co-curricular activities coordinator in BVBCET, Hubballi during academic year 2008-2013.
4. Coordinator for Organizing 'National Science Day' celebration in BVBCET, Hubballi from 2008-2015.
5. Event Coordinator (paper presentation) for Organizing 'Pleiades' National technical fest in BVBCET, Hubballi from the academic year 2011-12, 2012-13 and 2013-14.
6. Member, Board of Studies of Basic Sciences in BVBCET, Hubballi during academic year 2013-2014 and 2014-15.
7. Session's manager (oral paper presentation) for international conference on Transformations in Engineering Education (ICTIEE) held in BVBCET, Hubballi on 16-18 January 2014.
8. Coordinator, for the two days Lecture series "To celebrate the International year of crystallography (IYCR-2014) looking to the future, learning from the past" sponsored by VGST Karnataka, organized by Center for Material Science and Department of Physics conducted on 13-14 March 2015 at B.V. Bhoomaraddi College of Engineering and Technology, Hubballi.
9. Lecture given on the topic AC and DC motors, to train Dharwad district science teachers in the academic year 2011-12 in BVBCET, Hubballi.
10. Chairman E Club, PG. M.Sc. August 2018 to till date -
11. NPP Lab In charge. August 2019 till date
12. Senior supervisor, PG Physics Theory. M.Sc. I & III-Semester-MSc II and IV (March 2019 to Nov 2020)
13. Co-ordinator, Ph.D. Course work 2020 to till date
14. BOS member, Department of Studies in Physics, 2018 to till date
15. BOE Member, Department of Studies in Physics, 2019 to till date
16. Working committee Member –Unnati Bharati Abhiyan 2020 to till date
17. Member, Science and Technology Faculty from 2019 to till date
18. Member, Doctoral committee, Department of Studies in Physics from 2020 to till date
19. Member-NAAC preparation committee (iv: Infrastructure and Learning Resources)
20. KUD 2020
21. Member: (Invitation committee) (23-24 November 2018) to celebrate the Kannada in science and Technology, K.U. Dharwad.
22. Co-coordinator: for the project proposal on FIST project (level 2) GOI 2020.
23. NAAC task force member 2021.
24. E attestation officer –scholar ship section
25. Invitation committee member 70-71 annual convocation.

Academic Distinctions:

Year	Name of the award	Distinction for which the award was made
December 2019	contribution in Reviewing	Journal: Spectrochimica Acta Part B: Atomic Spectroscopy
August 29, 2018	Citation by National Nuclear Data center (International Atomic Energy Agency)	Journal Physics B: doi:10.1088/0953-4075/40/11/019
25-03-2017	Appreciation	Guided the project 'Green particle: Adopting Technology in conducting

	Physics and Chemistry lab' under the Tequip fund.
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Projects handling:

Title of me Project	Funding Agency	Grant sanctioned	Duration From To	Project Status completed / on-going
Green Nanotechnology based highly sensitive fiber grating chemical sensors	VGST	40.00 LAKHS	2019-2022	On-going
Study of Trace elements	DAE-UGC	12 LAKHS	2019-2022	Ongoing
Study on solar selective absorbers and anti-reflective coatings on solar energy applications	BVBCET, Hubli	2013-14	2013-15	completed
Design and fabrication of Spray Pyrolysis system for large area thin film deposition	KLE, Tech Hubli	2017-18	2017-18	completed

Training courses and Conference:

Event	Organizer/Place	Period/ Duration
Orientation Course	UGC sponsored orientation programme Organised by HRDC, K.U. Dharwad.	8-1-2019 to 4-2-2019
Multidisciplinary Refresher course on E-Governance programmes by using LINUX and GIT under the scheme PMMMMNMTT	PMMMMNMTT	17-08-2020 to 30-08-2020
UGC sponsored Refresher course in 'Natural sciences' organised	HRDC Goa University Goa	15-9-2020 to 28-9-2020
1.Two-week Faculty Development Programme on Multimedia and Drawing Under the scheme PMMMMNMTT	PMMMMNMTT	3-6-2020 to 16-6-2020
Two-week faculty development programme in Python under the scheme PMMMMNMTT	PMMMMNMTT	22 -6-2020 to 4 -7-2020
Introductory workshop on Astronomy And Astrophysics" (Instruments and observations)	Department of Physics, Karnatak University, Dharwad	December 5-7, 2005
Seminar on Trends In Condensed Matter Physics	Department of Physics, Karnatak University, Dharwad	1 March 8-9, 2006
Workshop on Nanomaterials and Experiments in Physics	Department of Physics, B.V.Bhomaraddi college of Engineering and Technology, Hubli	August 5, 2006
Two-Day International Collaquim on Nanotechnology	S.D.M. College of Engineering and Technology Dharwad, Karnatak	July 8-9, 2008 at Naveen Hotel Hubli
One Day National Workshop on 'Nuclear Energy For The 21 st Century	Department of Physics, SDMCET, Dharwad	27 th August 2009

Three Day 'International Conference on Optical Engineering' (Icoe-2012)	VTU Belgaum on	26-28 July 2012
Three Day National Seminar On 'Advances In Quantum Mechanics'	Govt. Engineering College, Kannur	December 13-15, 2012
2 nd National Seminar on Physics of Materials Based Device Fabrication 2013' (Nspm-Mdf 2013)	Department of Physics, Shivaji University, Kolhapur	January 4-5,2013.
Tequip-II Sponsored Three Days Workshop on "Recent Advances in Thin Film Technology"	Department of Physics, Basaveshwar Engineering College, Bagalkot	19-21 December 2013
UGC sponsored national level Lecture workshop on Novel materials	Department of Physics, Shri Kadasiddeshwar Arts College and H.S.Kotambri science institute, Hubballi	13-14 January 2015
Tequip sponsored one day workshop on "Research Philosophy"	B.V.Bhoomaraddi College of Engineering and Technology, Hubballi.	6 th March 2015
Tequip-II sponsored one day faculty development programme on "Hands on Training on Thin film Coating and Lithography Techniques"	Department of Physics, Basaveshwar Engineering College, Bagalkot	6 th November 2015
INUP Familiarization workshop on Nanofabrication Technologies	IIT Bombay	May 25-27, 2016
Capacity building workshop The Role of skill development in Higher Education	RUSA Dharwad	24-09-2018
workshop preparing NAAC 2021	KU Dharwad	5-10-2020
participated experiment on study of neutron multiplicity	BARC Mumbai	10-10-2019 to 15-10-2019.

Personal Particulars:

Name : **ARAVIND BENNAL**

Father's Name : S. R. Bennal

Date of Birth : 21-05-1975.

Sex : Male

Marital Status : married

Nationality : Indian

Contact Address : **Dr. ARAVIND S. BENNAL**
Department of Studies in Physics
Karnatak University, Dharwad.

Reference Address : Dr. Aravind S. Bennal
C/O Dr. N. M. Badiger
Rtd.Professor, Nuclear physics, Dept. of Studies in Physics
Karnatak University, Dharwad-580003.
Karnataka.

Educational Qualification:

Qualification: Course/class	Institution/Board	Percentage
S.S.L.C	J.T.Comp.Jr.College, Dambal-Gadag	73
P.U.C.	J.T.College, Gadag	60
B.Sc.	J.T.College, Gadag (Karnataka University, Dharwad)	61
M.Sc.	Karnataka University, Dharwad	65.7
P.G.D.C.A.	Karnataka University, Dharwad	PASS
Ph.D. (Physics)	Karnataka University, Dharwad	Apr-2008

Membership : Life member of the “**INDIAN SOCIETY FOR RADIATION PHYSICS**”, MUMBAI, INDIA.

Declaration:

I hereby declare that the above written particulars are true to the best of my knowledge and belief.

Place: Dharwad.

Date: 10-01-2022.

(Dr. ARAVIND S. BENNAL)