Curriculum Vitae

Contact Address:
Office:
Dr. Anil Kumar Gourishetty
Professor
Department of Physics
Indian Institute of Technology Roorkee
Roorkee-247667, Uttarakhand, INDIA.
Residence
C-604, River View Apartments,
IIT Roorkee – 247667
E-mail: anil.gourishetty@ph.iitr.ac.in
anilgouri@gmail.com
Ph: 01332-285133 (O), 285162 (R)
09458947442 (Mobile)
Fax: 01332-286662

Permanent Address:

Dr. Anil Kumar Gourishetty
S/o Shri Goursihetty Sudhakar
H. No. 13-2-110/1
Near Jyothi Colony, Matwada
Warangal - 506 002,
Telangana, INDIA.

- Joined the Dept. of Physics, IIT Roorkee on 3rd January 2011.
- Head, Centre for Indian Knowledge Systems, IIT Roorkee since November 6, 2023
- Associated with the Centre for Space Science and Technology from May 30, 2023 and Centre for Excellence in Disaster Mitigation and Management (CoEDMM), IIT Roorkee since 2014

Research interests

- **Experimental Nuclear Physics**: Growth and characterization of scintillation detectors for different applications; Development of GEANT4 Monte Carlo simulation codes for understanding the response of radiation detectors
- Nuclear Astrophysics
- Nuclear radiation-induced effects on materials and food products
- Environmental radioactivity
- Promotion of Sanskrit language and Indian knowledge Systems (IKS)

Education

• **Ph. D.** in Nuclear Physics (March 2002- June 2006) at Indian Institute of Technology, Kharagpur, India Degree awarded in 2008	**Thesis Title:** *"Some studies on important aspects of charged particle spectroscopy with ionization detectors and some aspects of alpha induced fusion reactions with ^{27}Al"* under the supervision of Prof. S. L. Sharma.
• **M. Tech.** in Solid State Technology (Jul. 2000- Jan. 2002) at Indian Institute of Technology, Kharagpur, India	**Project Title:** *"Simulation of detector response for energetic heavy ions"* under the supervision of Prof. S. L. Sharma CGPA: **8.91** (in a scale of **10**)

• **M. Sc.** in Physics (July 1996-July 1998) Kakatiya University, Warangal, Andhra Pradesh, India	Percentage of marks: **75%**
• **B. Sc.** in Mathematics, Physics and Chemistry (July 1993- April 1996) Kakatiya University, Warangal, Andhra Pradesh, India	Percentage of marks: **75%**

Professional Experience

- ✓ Currently working as Professor in the Department of Physics, Indian Institute of Technology Roorkee since 15th March 2024.
- ✓ Working as Associate Professor from 22nd December 2018 to 14th March 2024 in the Department of Physics, Indian Institute of Technology Roorkee.
- ✓ Worked as Assistant Professor from 23rd October 2012 to 21st December 2018 in the Department of Physics, Indian Institute of Technology Roorkee.
- ✓ Worked as Assistant Professor (On contract) from 3rd January 2011 to 22nd October 2012 in the Department of Physics, Indian Institute of Technology Roorkee.
- ✓ 5 months experience (16th July 2010 to 15th December 2010) as a lecturer in Physics at National Institute of Technology, Warangal, Telangana, India.
- ✓ Two years' experience (July 1998 – June 2000) as a lecturer in physics at Chaitanya Degree and Post Graduate College, Hanamkonda, Telangana. I have also conducted laboratory classes for undergraduate students during this period.

Research Experience

- Post Doctoral Fellow at Institute of Nuclear Physics, Krakow, Poland (worked with *Prof. Adam Maj*) (30th September 2009 – 28th September 2010)
- Post Doctoral Fellow at Tata Institute of Fundamental Research, Mumbai, India (worked with *Prof. Indranil Mazumdar*) (9th May 2007 – 29th September 2009)
- Ph. D. student at Indian Institute of Technology (I. I. T.), Kharagpur (Supervisor: *Prof. S. L. Sharma*) (March 2002 – July 2006)

Collaborations

1. BARC, Mumbai
2. TIFR, Mumbai
3. VECC, Kolkata
4. Cranfield University, UK
5. University of Surrey, UK

Awards and Honors

- ✓ Shortlisted in the top 15 faculty members at the institute level for outstanding teacher award, in 2018, 2019, 2020, and 2021, based on student feedback scores. The best faculty score obtained till now is 4.59/5 (For UG 1st year course of 177 students).
- ✓ Designated by Atomic Energy Regulatory Board, Govt. of India as Radiation safety officer (RSO) for Gamma Chamber after attending a course followed by written exam and viva.

- ✓ Recipient of the *Samskruta Vrati* award in August 2022 on the occasion of World Sanskrit Day organized by Central Sanskrit University, New Delhi.
- ✓ Member of a committee to prepare "Road Map for Indian Knowledge Systems (IKS)/ Sanskrit in Technical Institute for Next Five Years". The workshop was held at VNIT, Nagpur in collaboration with Central Sanskrit University, New Delhi in March 2023.

Reviewer of journals:

1. IEEE Transactions on Nuclear Science
2. Advanced Functional Materials
3. Journal of Applied Physics
4. Nuclear Instruments and Methods in Physics Research–A
5. Review of Scientific Instruments
6. International Journal of Energy Research
7. Nuclear Engineering and Design
8. Journal of Radio Analytical and Nuclear Chemistry
9. Pramana-Journal of Physics

Sponsored Research Projects:

Completed

S.No.	Title of Project	Funding Agency	Financial Outlay	Year of start & total period	Name of P.I. and other investigators	Status
1	Studies with new scintillation detectors	DST	21 lakhs	2012 (3)	Self as PI	Completed
2	Studies on coincidence summing effects in scintillation detectors	IIT Roorkee	4.9 lakhs	2012 (3)	Self as PI	Completed
3	Mapping the low temperature and low spin phase diagram of atomic nuclei	DST Indo-polish	13 lakhs	2015 (3)	Self as Co-PI	Completed
4	Development of Sanskrit Translator using Neural Machine Translation	IKS Division, Ministry of Education	10 lakhs	April 2022	Self as PI and two Co-PIs	Completed
5	Development of study material on Sanskrit based knowledge systems.	IKS Division at AICTE, Ministry of Education	7.5 lakhs	October 2022 (6 months)	Self as PI with 5 Co-PIs	Completed
6	Development of the textbook material	IKS Division,	12.5 lakhs	June 2023	Self as PI and 14 Co-PIs	Completed

	and supplementary material on Sanskrit-based Knowledge Systems for higher secondary and undergraduate students	Ministry of Education				
7	Development of textbook material and supplementary material on various Indian Knowledge Systems based topics for higher secondary and undergraduate students	IKS Division, Ministry of Education	13.5 lakhs	August 2024 (6 months)	Self as Co-PI with 19 Co-PIs	Completed
8	Algorithm and software development for alpha continuous air monitor (ALCAM) along with synthesis of indigenous detector	DRDO (SPIC)	9.9 lakhs	January 2024	Self as PI	Completed

Ongoing/Approved

1	Novel perovskite scintillators for high-resolution gamma spectroscopy and neutron-gamma discrimination	SERB, DST (Core Research Grant)	20 lakhs	January 2024	Self as PI and one Co-PI	Ongoing
2	Adaptation of Indigenous and Local Knowledge Systems and Fintech Solutions for Comprehensive Tribal Development in Chhattisgarh State	IIT Bhilai Innovation and Technology Foundation	3.65 crores	January 2024	Self as Co-PI with 11 Co-PIs	Ongoing
3	Developing E-readers for Daśopanishads in Sanskrit to Hindi and English	Central Sanskrit University, New Delhi	10 lakhs	July 2024	Self as Co-PI	Ongoing
4	AI and Sanskrit	Uttarakhand	10 lakhs	April	Self (as Head,	Ongoing

		Sanskrit University		2025	IKS centre) PI and 5 Co-PIs	
5	Bridging Indian knowledge systems into the classroom: Textbook and supplementary content creation for undergraduate levels	IKS Division, Ministry of Education	15 lakhs	June 2025 (6months)	Self as Co-PI with 15 Co-PIs	Ongoing
6	Novel gamma-ray camera to address thyroid disorders	Biotechnology Ignition Grant	36 lakhs	2 years	Self as Co-PI with 5 Co-PIs	Approved
7	The genesis of the universe, sustenance and destruction in Sanskrit knowledge systems	Central Sanskrit University, New Dehi	10 lakhs	2 years	Self as only Co-PI	Approved
8	Investigating the neurologistics of chants and chandas-A machine learning approach	Central Sanskrit University, New Dehi	2 lakhs	2 years	Self as only Co-PI	Approved

Teaching, Guidance and Mentorship

1. At UG, PG and PhD levels, I taught several courses, namely, Advanced techniques in charged particle spectroscopy, Advanced Techniques in gamma spectroscopy, Radiation Detection and Measurements, Electromagnetic theory, Special theory of relativity, Nuclear Physics and its Applications, Modern Physics, Nuclear Astrophysics, Reactor Physics, Advanced Characterization Techniques, Introduction to Sanskrit Knowledge Systems (IHS-325 as one of 8 faculty members) and Introduction to IKS (IKS-102 and IKS-501 as one of 10 faculty members) at IIT Roorkee.

2. Developed 8-week NPTEL course “Nuclear Astrophysics” in January – April 2022 session. This is offered as a re-run course in 2023, 2024 and 2025.

3. Mentored one National Post Doctoral Fellow (Dr. Mukesh Prasad) during 2017-18 and one institute postdoctoral fellow (Dr. Ashish Kumar) during 2021-2022.

4. First PhD student (Monalisha Dhibar) received PhD degree in October 2018. The title of her thesis was “Studies in nuclear structure and big bang nucleosynthesis using proton beams”. Her co-guide is Prof. Indranil Mazumdar, TIFR.

5. Second PhD student (Sheetal Rawat) received PhD degree in October 2019. The title of her thesis was “Studies on Pulse Shape Discrimination and Efficiency of GGAG:Ce Scintillators”. Her co-guide is Prof. S. C. Gadkari, BARC, Mumbai.

6. Third PhD student (Kalyani) received degree in 2023. The title of her thesis was "Growth And Characterization Of Scintillators For Thermal Neutron Detection". Her co-guide is Dr. M. Tyagi, BARC, Mumbai.

7. Fourth PhD student (Shikha Panwar) received degree in 2023. The title of her thesis was "Measurements of total cross sections and astrophysical S factors for proton induced reactions on ^{10,11}B isotopes". Her co-guide is Prof. Indranil Mazumdar, TIFR.

8. Fifth PhD student Annesha Karmakar (registered at IIT Kanpur and I was a co-guide) received PhD degree in 2024. The title of her thesis was "Specific and Efficient Neutron Measurement Techniques for Nuclear Engineering Applications".

9. Sixth PhD student Virender Ranga received PhD degree in July 2024. The title of his thesis was "Proton and alpha induced reactions on light nuclei for nuclear structure and astrophysics". His co-guide is Prof. Indranil Mazumdar, TIFR.

10. Currently guiding 10 Ph.D. students.

11. Guided 12 M. Tech. and 22 M.Sc. and 23 B. Tech. students in their dissertation work.

12. Mentored 3 students of IIT Kharagpur as part of the Alumni Mentorship program.

13. Mentored 4 students as part of SPARK scheme.

14. Mentored TWO international students. One from Mynamar as part of ASEAN fellowship and another one from Zimbabwe as part of C V Raman Fellowship.

Contributions at Institutional level and Departmental at IIT Roorkee :

- Convener, 68th DAE Symposium on Nuclear Physics held from December 7 to 11, 2024 at IIT Roorkee.
- Convener, G-20 committee at the institute level in 2023
- Associate Dean of Students' Welfare (Students' Activities) from 4th January 2021 to 3rd January 2023.
- Convener, Institute Lecture Series Committee (January 2014-December 2021). Took lead role in organizing about 100 institute lectures.
- Faculty coordinator, Sanskrit club, IIT Roorkee (January 2015- ongoing). Organized 7 guest lectures and 3 workshops. Overall coordinator "Subhashitam Samskirtam", a 5-level online spoken Sanskrit course in association with Samskrita Bharati. Participants were from 30 countries.
- Member, Advisory Committee, Educational Multimedia Research Centre (EMRC), Roorkee (2019-22)
- Chief warden of married hostels and Khosla International House from August 2019 to January 2021.
- Member, ABN school management committee (2015- 2018 and July 2021-24)
- Member of IPR Chair on Scientific Validation of Traditional Knowledge at IIT Roorkee
- Faculty Advisor, Electronics Section, Hobbies Club (2016-17)

- Program officer, National Service Scheme (2014-15)
- Overall coordinator of a workshop on "Introduction to Research" for students of IIT Roorkee: Course instructor was Prof. Shreepad Karmalkar, IIT Madras. Date: 12th October 2019
- Secretary, Indian Physics Association, Roorkee chapter (2011-14 and 2016-2022). Organized 17 guest lectures by faculty members and 24 seminars by PhD students.
- Chairman, Write-off committee, Dept, of Physics since January 2023 to October 2024.
- O.C., Radiation Detectors and Spectroscopy research lab since 2013
- O.C., Nuclear Physics teaching lab several times.

Contributions to Sanskrit promotion and to Indian Knowledge Systems as a faculty coordinator of Sanskrit club, IIT Roorkee (at the institution level)

- As a convener, I organized the National Youth Conference on Indian Knowledge Systems-2023 as part of G-20 University Connect Program with about 500 participants (www.iitr.ac.in/nyciks). The organizing committee comprised 26 faculty members from 12 departments.
- Working as a faculty coordinator of the Sanskrit club, IIT Roorkee since 2016.
- Organized 2-day workshops on **(1)** Ancient Indian Astronomy by Prof. R. N. Iyengar in 2016 **(2)** How to study Indic sources by Prof. Shrinivasa Varakhedi in 2017 **(3)** Indic Reasoning and Debating by SVS Pune in 2018.
- Initiated the live performance of Vedic chanting by students during the beginning of annual convocation at IIT Roorkee (since 2017).
- Established library in Sanskrit club with about 60 books on Sanskrit and IKS.
- Organized 6 ten-day spoken Sanskrit classes in association with Samskrita Bharati for the students and faculty of IIT Roorkee.
- Organized 8 guest lectures by eminent academicians on topics related to Sanskrit and IKS.
- Coordinated the events as part of celebration of Sanskrit week since 2016.
- Overall coordinator of **Subhashitam Samskritam**, a 5-level online Sanskrit course from July 2020 to January 2021 in association of with Samskrita Bharati. Around 5100 participants from 30 countries have cleared the level-1. Honorable Minister of Education (then MHRD) has graced the occasion as a chief guest during the concluding ceremony of level-1. The age group of participants was from 8 to 90 years. About 2400 participants continued up to level-5 and cleared level-5. Received an appreciation letter from Honorable Prime Minister Shri Narendra Modi who lauded the efforts of IIT Roorkee in promoting Sanskrit through subhashitams. Several participants offered guru dakshina to IIT Roorkee after the completion of course.
- Currently, the YouTube channel of Sanskrit club has more than 20,600 subscribers, 15 lakhs views and 263 videos.
- After the completion of Subhashitam Samskritam in January 2020, organized a teacher training camp in February 2021 in association with Samskrita Bharati. Around 500 participants were trained to teach Samskritam in various places.
- Played instrumental role in creating SAMARPANAM (acronym for SAMskritaaya ARPANAM), a group of students and faculty from institutions of national importance to promote Sanskrit and coordinated the first ever conclave on Sanskrit organized in

September 2020. Currently, the members are from 7 IITs, IISER Pune and IIIT Hyderabad.

- Arranged summer and winter internships for more than 20 B. Tech students and 1 M. Tech student of IIT Roorkee at different IITs and IISc Bengaluru who worked in the fields of Sanskrit and IKS.
- Organized first ever Hackathon in Sanskrit in November 2020 in association with Students Technical Council of IIT Roorkee.
- In October 2020, initiated a project on Sanskrit translator in association with Prof. Ganesh Ramakrishan, IIT Bombay.
- Member of IPR Chair on Scientific Validation of Traditional Knowledge at IIT Roorkee 2016-17.

Invited Talks

1) On "Advanced Scintillations Detectors for environmental radioactivity" during the first international conference on "Radiation Awareness and Detection in Natural Environment" held at Dehradun, Uttarakhand on March 4, 2023.
2) On "Scintillation detectors: Needs and trends" in online mode during 1st Nuclear Physcis Workshop conducted by SVNIT, Surat on 16th April 2022
3) On "Inorganic scintillators: Recent advances and Trends", at Faculty Development Program in DAV College, Amritsar, India on 19th July 2021.
4) On "Measurement Techniques using Inorganic Scintillation Detectors", in online workshop on "Nuclear Energy and Measurement" under the Scheme for Promotion of Academic and Research Collaboration (SPARC) program, Government of India conducted by NIT, Trichy on 23rd September 2021.

Monograph/book chapters

G. Anil Kumar, G., Ranga, V., Panwar, S. (2025). Measurement Techniques Using Inorganic Scintillation Detectors. In: Mangalanathan, U., Tiwari, A.P., Gandhi, U. (eds) Nuclear Instrumentation and Control. Springer, Singapore. https://doi.org/10.1007/978-981-97-1283-0_7

Additional Information

- ✓ Senior Member of Institute of Electrical and Electronics Engineers (IEEE, 90447186)
- ✓ Life member of the International Radiation Physics Society (IRPS)
- ✓ Life member of the Indian Physical Society
- ✓ Life member of the Indian Physics Association (LM-12299)
- ✓ Life member of the Indian Nuclear Society
- ✓ Life member of the Indian Association for Physics Teachers (L6796)
- ✓ Life member of the Materials Research Society of India (L0839)
- ✓ Member, Board of Directors, South Asia Alliance of Disaster Research Institutes (SAADRI)

List of Publications in refereed journals

(Scopus ID: 6507200270; ORCID: 0000-0001-9712-9422)

1. Mukesh Prasad, Sanjeet S. Kaintura, Abhishek Joshi, R.S. Aswal, V. Anand, Bhavika, Tushar Kandari, **G. Anil Kumar**, R.C. Ramola, Mass spectrometric analysis of uranium in Himalayan water: a health risk perspective, *Journal of Radioanalytical and Nuclear Chemistry*, 2025 (Accepted).
2. B. Bansal, V. Anand, P. J. Sellin, **G. Anil Kumar**, Properties of Li-doped $Cs_3Cu_2I_5$ Perovskite Scintillator Grown by a Room Temperature Solvent Evaporation Crystallization Method, *Nucl. Instr. and Meth. in Phys. Res. – A,* 1083 (2025) 171098.
3. B. Bansal, V. Anand, Naveen Kumar Tailor, V. Ranga, Soumitra Satapathi, P. J. Sellin, Mohit Tyagi, and **G. Anil Kumar**, Scintillation Properties of $CsCu_2I_3$ Perovskite Single Crystal Grown by Room Temperature Solution Processing Method, *IEEE Trans. on Nucl. Sci., 72* (2025) 3169.
4. Occurrence, correlation and health implications of uranium and other potentially toxic elements (PTEs) in Himalayan springs, Deepak Singh, Ganesh Prasad, Sanjeev Kimothi, Subhash Chandra, Yasutaka Omori, Masahiro Hosoda, **G. Anil Kumar,** Shinji Tokonami, R. C. Ramola, *Journal of Radioanalytical and Nuclear Chemistry, 334 (2025) 7497*.
5. V. Anand, P. Krause, B. Bansal, G. Bizarri, **G. Anil Kumar**, V. Ranga and Varun Sharma, 3D-Printed Plastic Scintillator: A Potential Avenue for Hetero-structured Radiation Detectors, *IEEE Trans. on Nucl. Sci.,* 72 (2025) 2100.
6. V. Anand, B. Bansal, K. Banerjee, G. Bizarri, Ritika Datta, and **G. Anil Kumar**, Development and Characterization of Digital Light Processing-based 3D-printed Plastic Scintillator for Radiation Detection, *IEEE Trans. on Nucl. Sci.,* 72 (2025) 1947.
7. Annesha Karmakar, **G Anil Kumar**, Mohit Tyagi, Anikesh Pal, Thickness Dependent Sensitivity of GAGG:Ce Scintillation detectors for Thermal Neutrons: GEANT4 Simulations and Experimental Measurements, *Journal of Radioanalytical and Nuclear Chemistry,* 334 (2025) 2203.
8. Annesha Karmakar, Anikesh Pal, **G Anil Kumar**, Bhavika, V. Anand, Mohit Tyagi, "Neutron-Gamma Pulse Shape Discrimination for Organic Scintillation Detector using 2D CNN based Image Classification", *Applied Radiation and Isotopes,* 217 (2025) 111653.
9. Mukesh K Meena, Thallada Bhaskar, **Anil K Gourishetty** and Deepak K Ojha, "Ionizing radiation as a pretreatment technique on the valorization of rice straw", *International Journal of Green Energy*, 22 (2025) 1414.
10. B. Bansal, V. Anand, **G. Anil Kumar**, V. Ranga, *"*Growth and Characterization of Highly Efficient $Cs_3Cu_2I_5$ Single Crystal for γ-Ray Detection*, Nucl. Instr. and Meth. in Phys. Res. – A,* 1069 (2024) 169867.
11. Annesha Karmakar, **G Anil Kumar**, Bhavika, V Anand, Anikesh Pal, Development of Indigenous Pulse-Shape Discrimination Algorithm for Organic Scintillation detectors, *Journal of Instrumentation*, 19 (2024) P07042.
12. V. Ranga, I. Mazumdar, Annesha Karmakar, **G. Anil Kumar**, Response of $LaBr_{2.85}Cl_{0.15}$:Ce, $LaBr_3$:Ce and NaI:Tl crystals to fast and thermal neutrons, *Nucl. Instr. and Meth. in Phys. Res. – A,* 1062 (2024) 169178.
13. V Ranga, I Mazumdar, S P Weppner, S Panwar, R Sariyal, S M Patel, P B Chavan, A K Rhine Kumar and **G Anil Kumar**, Measurement of proton induced absolute production

cross-section of 6.13, 6.92 and 7.12 MeV γ-rays from $^{16}O(p,p'\gamma)^{16}O$ reaction, *Journal of Physics G: Nuclear and Particle Physics*, 51 (2024) 045101.

14. Davinder Siwal, **Anil Kumar Gourishetty**, "Optical photon transport simulations for SiPM based PET scanner", *Journal of Physics: Conference Series, IoP Publishing*, 2663 (2023) 012042.
15. R.S. Aswal, Mukesh Prasad, Narendra Kumar Patel, A.L. Srivastav, **G. Anil Kumar**, R.C. Ramola, Johnbosco C. Egbueri, "Occurrences, sources and health hazard estimation of potentially toxic elements in the groundwater of Garhwal Himalaya, India", *Nature Scientific Reports,* 13 (2023) 13069.
16. Annesha Karmakar, Anikesh Pal, **G. Anil Kumar**, Bhavika, V. Anand, Mohit Tyagi, "Deep Neural Network-based Pulse Shape Discrimination of Neutrons and γ-rays in organic scintillation detectors", *Pramana-Journal of Physics*, 97 (2023) 157.
17. Pallavi Aggarwal, Prashant Bisht, Abhishek Ghosh, **Anil Kumar Gourishetty**, Edward Yi Chang, Bodh Raj Mehta, and Rajendra Singh, "Gamma Ray Induced Surface Charge Redistribution and Change of Surface Morphology in Monolayer WS2", *ACS Applied Nanomaterials*, 6 (2023) 7404.
18. V. Ranga, A. K. Rhine Kumar, I. Mazumdar, S. P. Weppner, S. Panwar, R. Sariyal, S. M. Patel, P. B. Chavan, A. K. Rhine Kumar, **G. Anil Kumar**, "Measurements of absolute γ-ray cross sections for $^{16}O(p,p'\gamma)^{16}O$ reaction", *Acta Physica Polonica B Proceedings Supplement*, 16, 4-A6 (2023).
19. Asit Srivastava, Rahul Chauhan, **G. Anil Kumar**, I. Mazumdar, "A Mathematical Approach to Calculate the Absolute Total Detection Efficiency of a 4π NaI(Tl) Sum Spin Spectrometer", *Nucl. Instr. and Meth. in Phys. Res. – A*, 1050 (2023) 168142.
20. Ashish Kumar, **G. Anil Kumar**, "Modification of lignin properties using alpha particles and gamma-rays for diverse applications", *Radiation Physics and Chemistry*, 202 (2023) 110562.
21. Mukesh Prasad, R.S. Aswa, Abhishek Joshi, **G. Anil Kumar**, R.C. Ramola, "A systematic study on occurrence, risk estimation and health implications of heavy metals in potable water from different sources of Garhwal Himalaya, India", *Nature Scientific Reports*, 12 (2022) 20419.
22. S. Rawat, Neeraj KumarI, V. Ranga, **G. Anil Kumar**, "Energy Response and Pulse Shape Discrimination studies of a 3- inch Liquid Scintillator", *Materials Today: Proceedings*, 67 (2022) 858.
23. Kalyani, Mohit Tyagi, A. K. Singh, Sonu and **G. Anil Kumar**, "Growth, luminescence, defects and scintillation properties of Sr co-doped LiI:Eu single crystal scintillator", *Materials Today Communications*, 29 (2021) 103011.
24. Kalyani, Mohit Tyagi, Sheetal Rawat and **G. Anil Kumar**, Performance studies of compact GGAG:Ce,B thermal neutron detector coupled to Si-based photosensors, *Pramana-Journal of Physics*, 95 (2021) 211.
25. Sanjeet S. Kaintura, V. Ranga, S. Panwar, Kalyani, P. Sehgal, **G. Anil Kumar**, "Energy Resolution of Compton Electrons in $LaCl_3$:Ce using Compact Digitizer", *Journal of Radioanalytical and Nuclear Chemistry*, 330 (2021) 1527.
26. R. Sariyal, I. Mazumdar, Y. M. Sharma, S. M. Patel, P. B. Chavan, V. Ranga, S. Panwar, **A. K. Gourishetty**, S. Dubey, "Characterisation of a small volume (1" x 1") $CeBr_3$ crystal for γ-ray measurements up to 4.4 MeV", *Journal of Instrumentation*, 16 (2021) T01004.
27. Kalyani, Mohit Tyagi, A. K. Singh, Tarun Patel, P. S. Sarkar, S. S. Desai, **G. Anil Kumar**, "Thermal neutron discrimination using a novel phoswich detector of

Gd3Ga3Al2O12:Ce,B and CsI:Tl single crystals", *IEEE Trans. on Nucl. Sci.,* 67 (2020) 2415.

28. S. Panwar, I. Mazumdar, R. Sariyal, V. Ranga, S. M. Patel, P. B. Chavan, **A. K. Gourishetty**, "Characterization of a Sr co-doped LaBr3:(Ce) detector for gamma-ray spectroscopy", *Nucl. Instr. and Meth. in Phys. Res. – A,* 982 (2020) 164567.
29. M. Tyagi, S. Rawat, **G. Anil Kumar**, S. C. Gadkari, "A novel versatile phoswich detector consisting of single crystal scintillators", *Nucl. Instr. and Meth. in Phys. Res. – A,* 951 (2020) 162982.
30. Mukesh Prasad, V. Ranga, **G. Anil Kumar**, R. C. Ramola, "Radiological impact assessment of soil and groundwater of Himalayan regions in Uttarakhand, India", *Journal of Radioanalytical and Nuclear Chemistry*, 323 (2020) 1269-1282.
31. S. Rawat, Mohit Tyagi, **G. Anil Kumar**, S. C. Gadkari, and Hong Joo Kim, "The effect of co-doping on pulse-shape discrimination properties of Gd3Ga3Al2O12:Ce single crystals", *IEEE Trans. on Nucl. Sci.,* 66 (2019) 244-2445.
32. I. Mazumdar, M. Dhibar, S.P. Weppner, **G. Anil Kumar**, A.K. Rhine Kumar, S.M. Patel, P.B. Chavan, C.D. Bagdia, L.C. Tribedi, "Studies in nuclear structure and big bang nucleosynthesis using proton beams", *Acta Physica Polonica B,* 50 (2019) 377.
33. Mukesh Prasad, **G. Anil Kumar**, S. K. Sahoo, R. C. Ramola, "Health risks associated with the exposure to uranium and heavy metals through potable groundwater in Uttarakhand state of India", *Journal of Radioanalytical and Nuclear Chemistry*, 319 (2019) 13.
34. M. Narsimhulu, **G. Anil Kumar**, G. Bhargavi, B. Srinivas, K. A. Hussain, "*Synthesis, crystal structure, thermal, photoluminescent and magnetic properties of a new material: Na2[Ni(C2O4)2(H2O)2].6H2O", Journal of Molecular Structure*, 1178 (2019) 155.
35. S. Rawat, M. Tyagi, **G. Anil Kumar**, S. C. Gadkari, Efficiency studies on $Gd_3Ga_3Al_2O_{12}$:Ce scintillators: Simulations and measurements", *IEEE Trans. on Nucl. Sci.,* 65 (2018) 2109-2113.
36. Mukesh Prasad, **G. Anil Kumar**, B. K. Sahoo, R. C. Ramola, "A comprehensive study of radon levels and associated radiation doses in Himalayan groundwater", *Acta Geophysica*, 66 (2018) 1223.
37. Mukesh Prasad, Peter Bossew, **G. Anil Kumar**, Rosaline Mishra, R. C. Ramola, "Dose assessment from the exposure to attached and unattached progeny of radon and thoron in indoor environment", *Acta Geophysica*, 66 (2018) 1187.
38. V. Ranga, S. Rawat, Snigdha Sharma, Mukesh Prasad, S. Panwar, K. Thakur, M.Dhibar, **G. Anil Kumar,** "Intrinsic resolution of Compton electrons in $CeBr_3$ scintillator using compact CCT". *IEEE Transactions on Nuclear Science,* 65 (2018) 616.
39. M. Dhibar, I. Mazumdar, P. B. Chavan, S. M. Patel, **G. Anil Kumar**, "Characterization of a 2 × 2 array of large square bars of $LaBr_3$:Ce detectors with gamma-rays up to 22.5 MeV", *Nucl. Instr. and Meth. in Phys. Res. – A,* 883 (2018) 183.
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Date: December 13, 2025 **(Anil Kumar Gourishetty)**