

CURRICULUM VITAE

Yubaraj Sharma

Assistant Professor
Department of Physics
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Personal details

Father's Name : (Late) Rabilal Sharma
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Educational Qualifications

Examination	Board/University/Institute	Subjects
SSLC (Matriculation) (1998)	M.B.O.S.E., (Don Bosco School)	English, Social Studies, Science, Mathematics, Alternative English
HSLC (XII) (2000)	M.B.O.S.E., (Tura Government College)	English, Physics, Chemistry, Mathematics
Graduation (B.Sc) (2003)	N.E.H.U., (Tura Government College)	Physics (Honours) Chemistry, Mathematics
Post-Graduation (M.Sc) (2005)	N.E.H.U., Shillong	Physics
Doctorate (Ph.D.)* (2015)	N.E.H.U., Shillong	Physics

*Thesis title: "Studies on Stopping Powers, Etching and Annealing Characteristics of Heavy Ion Irradiated Nuclear Track Detectors" under the supervision of Prof. Atul Saxena, NEHU, Shillong. UGC 2009 regulation compliant.

Other qualifications:

- School certificate in DOS, WORDSTAR, BASIC etc.
- A.D.S.M. (advanced diploma in computer applications) from BDPS (ECIL)
- Working experience in Microsoft Office, FORTRAN, MatLab, Mathematica, LaTeX, Python etc.
- Also various certificates in sports and literary events (quiz, debates etc.)

Teaching Experience:

- Taught in Kendriya Vidyalaya, NEHU, Shillong for about 6 months (from September 2015 to July 2016)
- Taught in various colleges in Shillong for about two years after post-graduation (i.e. between 2005 and 2007)
- Guest Lecturer in the Department of Physics, NEHU, Shillong (February to June 2017).
- Currently Assistant Professor in the Department of Physics, Don Bosco College, Tura (since June 2017).

Research Experience:

- Junior Research Fellow in the Project “Radon monitoring in Groundwater of the Northeastern India region to study the Neotectonic activities and health hazard.”
(Project duration: 2007-2010; Budget: Rs. 14, 08,950/-).
- Attended and presented papers in various seminars/conferences etc.
- Published scientific papers in various peer reviewed journals and conference proceedings.

Research Interests:

- Solid State Nuclear Track Detectors.
- Environmental radon.
- Computer vision.

Participation in Faculty Development Programme:

- [1] Attended the **Orientation Programme** — “44th Orientation Programme” organized by HRDC-NEHU from 04th July to 31th July, **2018**, at NEHU.
- [2] Attended the **Refresher Course** — “Science Academies’ Refresher course on ‘Frontiers of Theoretical Physics’” organized by Assam Don Bosco University from 01st February to 16th February, **2021**, at Tepasia, Sonapur.
- [3] Attended the **Workshop** — “Workshop on E-Content Development and Online Pedagogy” organized by HRDC-NEHU from 24th January to 31th January, **2022**, online.
- [4] Attended the **FDP** — “one week Faculty Development Programme on “Data Analysis Using R”” organized by Teaching Learning Centre, Ramanujan College, University of Delhi from 12th December to 18th December, **2022**, online.

Conference/Seminar/Symposia

Organized the event

- 2020** [1] Organized the “International Web Conference on Recent Advances in Science (IWCRAS 2020)” organized by Department of Physics, IQAC and others from 30th July to 31th July, 2020.

Chaired and Participated in the event

- 2022** [2] Chaird and Participated in the “Online National Workshop on MOOCS, E-Content Development and Open Educational Resources” organized by Department of Education, North-Eastern Hill University, Tura Campus Department of Education & Educational Technology, School of Social Sciences, University of Hyderabad Don Bosco College, Tura, Meghalaya from 14th February to 18th February, 2022.

Presented paper in the event

- 2008** [3] Presented paper in the “National Seminar on Nuclear Science and its Applications in Various Fields” organized by IQAC, Saint Mary’s College from 15th May to 16th May, 2008.
- 2009** [4] Presented paper in the “96th Indian Science Congress” organized by ISCA from 03rd January to 07th January, 2009.
- 2013** [5] Presented paper in the “Approaches of Basic sciences Towards the Development of Engineering ad Technology” organized by Assam Don Bosco University from 01st March to 02nd March, 2013.
- [6] Presented paper in the “18th National Symposium on Solid State Nuclear Track Detectors and their Applications (SSNTDs-18)” organized by Faculty of Science, Aggarwal College from 18th October to 20th October, 2013.

- 2015** [7] Presented paper in the “*National Conference on New Approaches of Basic Sciences towards the Development of Engineering and Technology 2015 NABSET 2015*” organized by Assam Don Bosco University from 27th February to 28th February, 2015.
- [8] Presented paper in the “*Climatic Aberrations: Contemporary dilemma of the anthropogenic climate in socio and ecological issues*” organized by Department of Chemistry & Botany, Sankardev College from 23rd July to 24th July, 2015.
- 2018** [9] Presented paper in the “*Understanding the Earth for Resourcing Future Generations*” organized by ISCA, Shillong Chapter & NEHU from 05th March to 06th March, 2018.
- 2019** [10] Presented paper in the “*Trends in Modern Physics 2019*” organized by Department of Physics, Assam Don Bosco, University from 22nd February to 23rd February, 2019.
- 2020** [11] Presented paper in the “*International Web Conference on Science, Engineering & Technology, IWCSET-2020*” organized by Society for Technologically Advanced Materials of India (STAMI) from 15th May to 16th May, 2020.

Participated in the event

- 2008** [12] Participated in the “*National Workshop on Trace Elements Research*” organized by UGC DAE Consortium for Scientific Research, Kolkata Centre & Department of Physics, NEHU, Shillong from 04th March to 06th March, 2008.
- 2009** [13] Participated in the “*High Performance Computing*” organized by Centre for Development of Advanced Computing, NEHU from 03rd March to 06th March, 2009.
- 2010** [14] Participated in the “*Non-linear Dynamics and its Applications in Geosciences*” organized by MoES & NEHU from 18th June to 22nd June, 2010.
- 2012** [15] Participated in the “*Earthquake Risk Mitigation and Management*” organized by NEHU, NIDM, NEC, MATI, EOS from 26th March to 30th March, 2012.
- 2015** [16] Participated in the in the “*Commemoration of Birth Anniversary of Madam Marie Curie and Sir C.V. Raman*” organized by School of Physical Sciences, School of Technology & Centre for Science Education, NEHU on 07th November, 2015.
- 2017** [17] Participated in the “*7th DAE-BRNS workshop on EXFOR compilation of Nuclear Data*” organized by DAE-BRNS & NEHU, Shillong from 06th March to 10th March, 2017.

- [18] Participated in the in the "*Social Surfing 3.0*" organized by Don Bosco College, Tura on 19th August, 2017.
- 2018** [19] Participated in the in the "*Maximal Usage of Foldscope to Explore Miniatures in the World*" organized by Multiple on 11th September, 2018.
- [20] Participated in the in the "*Popular Lectures on Modern Technology in Biological Sciences*" organized by Institutional Biotech Hub, DBC, Tura on 25th September, 2018.
- 2020** [21] Participated in the "*HTML and ExpEYES software*" organized by Department of Physics, SVP College, Bhabhua, Bihar from 14th May to 27th May, 2020.
- [22] Participated in the "*Enhancing Digital Competencies of Teacher Educators, Teachers and Parents of School Students*" organized by Department of Education, NEHU; Centre for pre-service teacher education and PG department of education, St. Anthony's college from 22nd June to 27th June, 2020.
- 2021** [23] Participated in the in the "*DVV Process of NAAC*" organized by MasterSoft ERP Solutions Pvt. Ltd. Nagpur on 17th June, 2021.
- [24] Participated in the in the "*National Education Policy 2020*" organized by NEHU on 19th June, 2021.
- 2022** [25] Participated in the "*Workshop on E-Content Development and Online Pedagogy*" organized by HRDC-NEHU from 24th January to 31th January, 2022.
- [26] Participated in the in the "*Basic Statistical Techniques in Research Methodology*" organized by HRDC-NEHU on 22nd February, 2022.
- [27] Participated in the in the "*Investor Awareness Program*" organized by Don Bosco College in association with Ambition Learning Solutions on 26th March, 2022.
- [28] Participated in the in the "*Academic Leadership in Higher Education Institutions in India*" organized by HRDC-NEHU on 23rd September, 2022.
- [29] Participated in the "*Machine Learning and its Application*" organized by Department of IT, ICFAI from 09th November to 10th November, 2022.
- 2023** [30] Participated in the "*Representation of Women of North East India in Multi-Disciplinary Discourse*" organized by IQAC, Department of Philosophy and ICC, Don Bosco College from 28th April to 29th April, 2023.

List of Publications

Journal Publications

- 2013** [1] D. Maibam, **Y. Sharma**, T. Brahma, A. Saxena, and D. Walia. (2013), “Potential alpha energy concentration in schools of Shillong, India”, Indian Journal of Science and Technology, vol. 6, S3.
- [2] D. Maibam, **Y. Sharma**, A. Saxena, and D. Walia. (2013), “Radon activity in soil-air environment of forest and urban residential areas of Shillong, Meghalaya”, Indian Journal of Science and Technology, vol. 6, S3.
- [3] D. Maibam, **Y. Sharma**, K. Shylla, A. Saxena, and D. Walia. (2013), “Radon activity in and around coal mining areas of Khabriat (Meghalaya) and its potential health hazards”, Indian Journal of Science and Technology, vol. 6, S3.
- [4] A. Saxena and **Y. Sharma**. (2013), “Stopping power of aluminium for energetic ^{238}U ions using nuclear-track technique”, Indian Journal of Science and Technology, vol. 6, no. 3,
- 2015** [5] A. K. Dewasaw, D. Maibam, **Y. Sharma**, A. Saxena, E. L. Nongneng, P. P. Ram, and D. Walia. (2015), “Radon measurements in the soils of Nongstoin and Mairang regions of West Khasi Hills district, Meghalaya”, Journal of Applied and Fundamental Sciences, vol. 1, no. 2,
- [6] A. K. Dewasaw, D. Maibam, **Y. Sharma**, and A. Saxena. (2015), “Indoor radon activity concentrations in Nongstoin town, West Khasi Hills district, Meghalaya”, Journal of Applied and Fundamental Sciences, vol. 1, no. 2,
- [7] D. Maibam, **Y. Sharma**, A. K. Dewasaw, Lalventluanga, D. Walia, and A. Saxena. (2015), “Measurement of radon activity concentrations in the environs of Aizawl city, Mizoram”, Journal of Applied and Fundamental Sciences, vol. 1, no. 2,
- [8] D. Maibam, **Y. Sharma**, A. K. Dewasaw, A. Kenye, D. Walia, and A. Saxena. (2015), “Assessment of soil-radium content, indoor radon activity and the associated radiation risks in Kohima town, Nagaland”, Journal of Applied and Fundamental Sciences, vol. 1, no. 1,
- [9] **Y. Sharma**, D. Maibam, P. P. Ram, A. Saxena, and D. Walia. (2015), “A study on the indoor radon concentration in hospitals in the Shillong region, Meghalaya”, Journal of Applied and Fundamental Sciences, vol. 1, no. 1,
- 2017** [10] A. Khardewasaw, D. Maibam, **Y. Sharma**, and A. Saxena. (2017), “Radon activity in Nongkhlaw village of West-Khasi Hills District, Meghalaya”, International Journal of Engineering Technology, Management and Applied Sciences, vol. 5, no. 3,
- [11] D. Maibam, **Y. Sharma**, A. Khardewasaw, and A. Saxena. (2017), “Comparison of a few simple prescriptions for the selection of number of bins in a univariate histogram for normally distributed samples using simulations”, Transient, vol. VI,
- [12] **Y. Sharma**, D. Maibam, S. Ghosh, and A. Saxena. (2017), “A study on statistical correlation between indoor radon and meteorological parameters”, International Journal of Engineering Technology, Management and Applied Sciences, vol. 5, no. 3,
- [13] **Y. Sharma**, D. Maibam, A. Khardewasaw, and A. Saxena. (2017), “Spectral analysis of indoor radon time-series using frequency and time-frequency techniques”, International Journal of Engineering Technology Science and Research, vol. 4, no. 3,
- 2018** [14] A. Khardewasaw, D. Maibam, **Y. Sharma**, and A. Saxena. (2018), “Studies on indoor radon activity concentration in two villages of West-Khasi Hills district of Meghalaya, India”, AIP Conference Proceedings, vol. 1951, no. 1, DOI: 10.1063/1.5031719.

- [15] A. Pyngrope, A. Khardewsaw, D. Maibam, **Y. Sharma**, A. Saxena, and B. K. Sahoo. (2018), "Measurement of indoor radon and thoron in East Khasi Hills district of Meghalaya, India", Journal of Applied and Fundamental Sciences, vol. 4, no. 1,
- 2019 [16] A. Khardewsaw, D. Maibam, **Y. Sharma**, and A. Saxena. (2019), "Indoor radon measurement in some villages of West Khasi Hills district of Meghalaya, India", Journal of Emerging Technologies and Innovative Research, vol. 6, no. 3,
- [17] A. Pyngrope, A. Khardewsaw, N. Jami, T. Talang, D. Maibam, **Y. Sharma**, D. Walia, and A. Saxena. (2019), "Measurement of indoor radon activity levels in Jowai region, Meghalaya, India", Journal of Applied and Fundamental Sciences, vol. 5, no. 1,
- 2020 [18] R. Kalita, D. Kalita, **Y. Sharma**, D. Walia, and A. Saxena. (2020), "Long-term trend analysis of temperature in Meghalaya", Hill Geographer, vol. XXXVI, no. 1,
- [19] A. Pyngrope, A. Khardewsaw, **Y. Sharma**, D. Maibam, A. Saxena, and B. K. Sahoo. (2020), "Study of indoor radon, thoron and their progeny in South West Khasi Hills District of Meghalaya, India", Radiation Protection Dosimetry, vol. 189, no. 3, DOI: 10.1093/rpd/ncaa048.
- [20] **Y. Sharma**, A. Saxena, D. Maibam, and J. P. Gewali. (2020), "Experimental ranges of energetic ^{238}U ions in Tantalum", European Journal of Molecular & Clinical Medicine, vol. 07, no. 07,
- 2021 [21] D. Kalita, R. Kalita, **Y. Sharma**, and A. Saxena. (2021), "An experimental study of ^{93}Nb ion ranges in Makrofol-E detector", AIP Conference Proceedings, vol. 2352, no. 1, DOI: 10.1063/5.0052578.
- 2022 [22] A. Pyngrope, A. Saxena, A. Khardewsaw, **Y. Sharma**, and B. K. Sahoo. (2022), "Effect of soil's porosity and moisture content on radon and thoron exhalation rates", Journal of Radioanalytical and Nuclear Chemistry, DOI: 10.1007/s10967-021-08168-y.

Book Chapters

- 2019 [1] D. Walia, D. Maibam, **Y. Sharma**, and A. Saxena. (2019), "Radon : Detection, exposure and control", in R. Tiwari, Ed. New York: Nova Science Publishers, Inc, ch. Radon testing and mitigation in schools of Shillong City, Meghalaya.
- [2] D. Walia, A. Saxena, D. Maibam, and **Y. Sharma**. (2019), "Radon : Detection, exposure and control", in R. Tiwari, Ed. New York: Nova Science Publishers, Inc, ch. Calibration Factor for LR-115 Type II Detector for Soil-Gas Radon Measurement.
- 2021 [3] A. Pyngrope, A. Khardewsaw, **Y. Sharma**, D. Maibam, and A. Saxena. (2021), "Recent Advancements in Science and Technology", in D. Nongsiang, D. Paul, and J. P. Marak, Eds. Sara Book Publication, ch. Comparative Case Study between Bare-Mode LR-115 Detector Film and Pin-Hole Dosimeter in the Measurement of Indoor Radon.