Manish Kumar Sharma
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1 Professional Experience

- Tennessee Tech University (Tennessee Tech) — Aug 2025-Present
  Assistant Professor, Nuclear Engineering
- Pacific Northwest National Laboratory (PNNL) — May 2022-Aug 2025
  Physicist, National Security Directorate
- Pacific Northwest National Laboratory — Feb 2020-Apr 2022
  Postdoctoral Research Associate, National Security Directorate
- Khalifa University, United Arab Emirates (KU)* — Aug 2018-Jan 2020
  Assistant Professor, Nuclear Engineering
- University of Michigan, Ann Arbor (U-Michigan) — Jul 2016-Jul 2018
  Postdoctoral Fellow, Nuclear Engineering & Radiological Sciences

2 Education

- Missouri University of Science and Technology (Missouri S&T) — 2011-2016
  Ph.D. Nuclear Engineering — **GPA: 4.0/4.0**
- Indian Institute of Technology Kanpur (IIT Kanpur) — 2009-2011
  M.Tech. Nuclear Engineering & Technology — **GPA: 9.5/10.0**
- Z.H. College of Engineering and Technology — 2005-2009
  B.Tech. Electrical Engineering — **GPA: 8.83/10.0**

3 Refereed Journal Papers

[1] A. Couture, B. Archambault, K. Bertschinger, K. Crockett, R. Ewing, C. Hubbard, C. Johnson, M. Myjak, R. Perea, A. Puyleart, **M. Sharma** et al., ''A flow-through gamma detection system for sub-surface radioxenon tracer measurements in LYNM PE1,'' Journ. of Radioan. and Nucl. Chem., 334, 7205-7216, 2025.

[2] **M. Sharma**, J. Burnett, ''Development and Validation of a Software for Simulating γ-γ Coincidence Emission and Detection Probabilities,'' Nucl. Instrum. Methods Phys. Res. A, 1076, 170486, 2025.

[3] **M. Sharma**, J. Burnett, ''Development and Performance Evaluation of a Novel γ-γ Coincidence Analysis Software,'' Nucl. Instrum. Methods Phys. Res. A, 1053, 168337, 2023.

[4] P. Eslinger, H. Miley, J. Burnett, L. Lidey, J. Mendez, B. Schrom, **M. Sharma**, ''Projected Network Performance for Next Generation Aerosol Monitoring Systems,'' Journ. of Env. Radioac., 257, 107088, 2023.

[5] C. Johnson, J. Slack, **M. Sharma**, C. Simpson, J. Burnett, ''Modeling of Fission and Activation Products in Molten Salt Reactors and Potential Impact on the Radionuclide Monitoring Stations of the International Monitoring System,'' Journ. of Env. Radioac., 234, 106625, 2021.

[6] **M. Sharma**, J. Burnett, ''Sensitivity and Low-Energy Response of the Small Anode Germanium Well Detector with Ceramic Insert,'' Nucl. Instrum Methods Phys. Res. A, vol. 988, 164943, 2021.

[7] M. Lee, D. Lee, E. Ko, K. Park, J. Kim, K. Ko, **M. Sharma**, G. Cho, ''Pulse Pileup Correction Method for Gamma-ray Spectroscopy in High Fields,'' Nucl. Engg. and Tech, vol. 52-5, 1029-1035, 2020.

*Excellent teaching reviews; teaching experience can be provided upon request.

[8] A. Foster, A. Meddeb, M. Wonders, M. Flaska, **M. Sharma**, Z. Ounaies, I. Jovanovic, ''On the Fabrication and Characterization of Composite Neutron Detectors with Triple-Pulse-Shape-Discrimination Capability,'' Nucl. Instrum. Methods Phys. Res. A, 954, 161681, 2020.

[9] K. Park, J. Kim, K. Lim, J. Kim, H. Chang, H. Kim, **M. Sharma**, G. Cho, ''Ambient Dose Equivalent Measurement with a CsI(Tl) Based Personal Dosimeter,'' Nucl. Engg. and Tech., vol. 51-8, 1991-1997, 2019.

[10] **M. Sharma**, J. Nattress, I. Jovanovic, ''Impact of Neutron Flux Anisotropy from DT Generator on Radiation Shielding Effectiveness,'' Nucl. Instrum. Methods Phys. Res. A, 911, 37-44, 2018.

[11] M. Ford, B. O'Day, J. McClory, **M. Sharma**, A. Danagoulian, ''Evaluation of Eu:LiCAF for Neutron Spectroscopy using SiPMs and Portable Electronics,'' Nucl. Instrum. Methods Phys. Res. A, 908, 110-116, 2018.

[12] **M. Sharma**, J. Nattress, K. Wilhelm, I. Jovanovic, ''Triple Pulse Shape Discrimination and Capture-Gated Spectroscopy in a Composite Heterogeneous Scintillator,'' Nucl. Instrum. Methods Phys. Res. A, 857, 75-81, 2017.

[13] **M. Sharma**, A. Alajo, ''Integrated Doses Calculation in Evacuation Scenarios of the Neutron Generator Facility at Missouri S&T,'' Nucl. Instrum. Methods Phys. Res. A, 827, 8-12, 2016.

[14] **M. Sharma**, A. Alajo, H. Lee, ''Three-dimensional Localization of Low Activity Gamma-ray Sources in Real-time Scenarios,'' Nucl. Instrum. Methods Phys. Res. A, 813, 132-138, 2016.

[15] **M. Sharma**, A. Alajo, X. Liu,''Adjoint Acceleration of Monte Carlo Simulations using SCALE: A Radiation Shielding Evaluation of the Neutron Generator Room at Missouri S&T,'' Nucl. Instrum. Methods Phys. Res. A, 792, 47-55, 2015.

[16] **M. Sharma**, A. Alajo, X. Liu,''MCNP Modeling of a Neutron Generator and its Shielding at Missouri University of Science and Technology,'' Nucl. Instrum. Methods Phys. Res. A, 767, 126-134, 2014

4 Refereed Conference Proceedings, Talks, Posters

[1] F. De Figueiredo[†], D. Maye[†], **M. Sharma**, ''Investigating Machine Learning Models for Identifying Anomalies in Radiation Detection,'' Gold Experience Research Symposium, Pacific Northwest National Laboratory, Richland, Jul 23, 2025.

[2] **M. Sharma**, R. Britton, A. Davies, ''Deployment of Advanced CdZnTe Detectors for Nuclear Explosion Monitoring,'' Trans. of Amer. Nucl. Soc., 2026 (to be submitted).

[3] M. Keillor, J. Inman, W. Kernan, M. Moore, E. Morrison, **M. Sharma**, and J. Slack, ''Assay of ^{233}U Using a CZT Gamma Spectrometer,'' Nuclear Security Applications Research & Development Meeting (NSARD), PNNL-SA-208108, Aiken, South Carolina, Mar 6, 2025.

[4] M. Foxe, T. Bowyer, T. Goldberg, M. Huh, R. Michaels, A. Peddicord, **M. Sharma**, et al. 'Environmental Variation Impacts on the International Monitoring System,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Sep 8-12, 2025, PNNL-SA-207523.

[5] J. Ely , B. Abromeit, T. Hallen, W. Harper, J. Hayes, **M. Sharma**, et al., ''Use of ^{127}Xe in a Tracer Experiment for Model Validation,'' Intn. Conf. on Meth. and App. of Radioan. Chem. (MARC), Hawaii, Mar 23-28, 2025.

[6] M. Foxe et al., ''Transport variability of Xenon and Tritium following an Underground Explosively Driven Release,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Sep 9-12, 2025.

[7] **M. Sharma** et al., ''Activities at Pacific Northwest National Laboratory to Advance Nuclear Radiation Science among Underrepresented STEM Students,'' Amer. Nucl. Soc. Winter Meeting, Orlando, Florida, Nov 17-21, 2024.

[†]Dr. Sharma is the research supervisor of the student.

[8] D. Maye†, **M. Sharma**, ''Development and Testing of a Semi-automated Multimodal Radiation Detection System,'' Gold Experience Research Symposium, Pacific Northwest National Laboratory, Richland, Jul 25, 2024.

[9] J. Slack, M. Keillor, J. Inman, M. Moore, and **M. Sharma**, ''Non-destructive Assay of ^{233}U for Safeguards,'' Nuclear Security Applications Research & Development Meeting (NSARD), Lemont, Illinois, Apr 16, 2024.

[10] A. Couture, R. Perea, A. Puyleart, B. Archambault, C. Johnson, K. Bertschinger, and **M. Sharma**, ''A Gamma-Gamma Coincidence Detection System for the Quantification of ^{127}Xe gas in the LYNM PE1-A Experiment,'' Intl. Noble Gas Exper. Workshop, Vienna, Austria, Jun 10-14, 2024.

[11] J. Slack, M. Keillor, M. Moore, **M. Sharma**, J. Inman, W. Kernan, ''Investigating Signatures and Safeguards for Molten Salt Reactors,'' Crossroads of Nonproliferation and Safeguarding Technologies for Implementation in Molten Salt Reactors Workshop, Idaho Falls, Idaho, Dec 6-7, 2023.

[12] J. Burnett, R. O'Mara, **M. Sharma**, and A. Myers, ''More sensitive radionuclide measurements in support of Special Studies and Expert Technical Analysis,'' Radionuclide Expert Meeting, Vienna, Austria, Oct 2, 2023.

[13] A. Petts, T. Bowyer, J. Burnett, J. Friese, M. Goodwin, B. Milbrath, A. Ringbom, **M. Sharma**, ''XENAH: Xenon Environmental Nuclide Analysis at Hartlepool,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Jun 19-23, 2023.

[14] J. Slack, J. Burnett, C. Johnson, **M. Sharma**, C. Simpson, ''Potential Impact of Molten Salt Reactors on Radionuclide Stations of the International Monitoring System,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Jun 19-23, 2023.

[15] **M. Sharma**, J. Burnett, ''Development and Validation of Coincidence Analysis/Quantification Software for Gamma-Gamma Coincidence Counting,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Jun 19-23, 2023.

[16] **M. Sharma** et al., ''Partnership for Radiation Studies (PaRS): A Consortium for Advancing Radiation Science among Underrepresented STEM Students,'' Trans. of the Amer. Nucl. Soc., vol. 128, pp 48-49, 2023.

[17] E. Machorro, D. Kasparek, **M. Sharma**, T. White, ''Emission Tomography with Spatially Varying Attenuation Estimates based on Multi-energy Transmission Measurements,'' American Meteorological Society Sectional Meeting, Salt Lake City, Utah, Oct 22, 2022.

[18] **M. Sharma**, ''Performance of a Grid-Refinement Method in Dual Source Localization,'' Amer. Nucl. Soc. Annual Meeting, Anaheim, Jun 12-16, 2022.

[19] **M. Sharma**, ''Dual Source Localization using Pulse Shape Discriminating Scintillators,'' Ultra-Sensitive Nuclear Measurements Program, PNNL, Richland, USA, Feb 24, 2022.

[20] J. Burnett, A. Myers, R. O'Mara, **M. Sharma**, ''Ultra-sensitive Gamma Spectrometry Measurements using the Advanced Radionuclide Gamma spectrOmeter (ARGO) Systems,'' Intn. Conf. on Meth. and App. of Radioan. Chem. (MARC), Hawaii, Apr 3-8, 2022.

[21] J. Burnett, H. Miley, A. Myers, **M. Sharma**, ''Improving the Detection Sensitivity of the Next Generation of Radionuclide Aerosol Sampler/Analyzer Air Sampler,'' Intn. Conf. on Meth. and App. of Radioan. Chem. (MARC), Hawaii, Apr 3-8, 2022.

[22] J. Burnett, **M. Sharma**, A. Myers, ''RASA 2.0: Sensitivity Improvements using Gamma-Gamma,'' The Radionuclide Workshop on Integrated Measurements in Nuclear Explosion Monitoring, Jun 1, 2021.

[23] **M. Sharma**, J. Burnett, A. Myers, L. Lidey, H. Miley, T. Anderson, H. Persson, K. Phillips, ''Development of an Ultra-sensitive Gamma-samma Coincidence System for Radionuclide Measurements at International Monitoring System Stations,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Jun 28-Jul 2, 2021.

[24] J. Burnett, C. Johnson, A. Myers, **M. Sharma** et al., ''Ultra-sensitive Gamma-spectrometry Measurements of Environmental Samples from the Hartlepool Nuclear Power Station,'' CTBT Sci. & Tech. Conference, Vienna, Austria, Jun 28-Jul 2, 2021.

[25] **M. Sharma**, J. Nattress, and I. Jovanovic, ''Determination of Neutron Flux Anisotropy from a Compact DT Generator and its Implications for Shielding Design,'' Symposium on Radiation Measurements and Applications (SORMA XVII), Ann Arbor, USA, Jun 11-13, 2018.

[26] T. Wu, A. Foster, J. Nattress, **M. Sharma**, A. Meddeb, Z. Ounaies, and I. Jovanovic, ''Scintillation Characteristics of a Heterogeneous Composite Detector in Shards Geometry,'' Symposium on Radiation Measurements and Applications (SORMA XVII), Ann Arbor, USA, Jun 11-13, 2018.

[27] C. Graham†, **M. Sharma**, J. Nattress and I. Jovanovic,''Development and Study of a Composite Scintillator,'' Undergraduate Research Opportunity Program Symposium, Ann Arbor, USA, Apr 18, 2018.

[28] **M. Sharma**, J. Nattress, K. Wilhelm, I. Jovanovic, ''Development and Characterization of a Composite Scintillator Sensitive to Gammas, Fast, and Thermal Neutrons,'' IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, USA, Oct 21-28, 2017.

[29] J. Nattress, K. Ogren, **M. Sharma**, I. Jovanovic,''Discriminating Uranium Isotopes based on Long-lived Delayed Neutron Time Emission Profile,'' IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, USA, Oct 21-28, 2017.

[30] I. Jovanovic, F. Sutanto, J. Nattress, M. Mayer, and **M. Sharma**, ''Detection of Special Nuclear Material from Time-Dependent Beta-Delayed Neutron Emission in Active Interrogation,'' ANIMMA, Liege, Belgium, Jun 19-23, 2017

[31] **M. Sharma**, ''Neutron Generator and its Shielding at Missouri S&T,'' American Nuclear Society-Rolla Chapter, Missouri S&T, 2014.

[32] **M. Sharma**, A. Alajo, H. Lee, ''Proactive Radiation Detection: An Inverse Approach,'' Graduate Research Showcase, Missouri S&T, USA, April 12, 2012.

[33] P. Athe, **M. Sharma**, S. Shakya, M. Bajpai, B. Pande, N. Jain, P. Gupta, M. Kalra, P. Munshi, ''Recent Developments in Tomographic Imaging,'' 2nd International Conference on Asian Nuclear Prospects (ANUP), Chennai, India, October 11-13, 2010.

5 Teaching Experience

- Tennessee Tech University (Assistant Professor)
  Intro to Nuclear Energy Systems (NE2110) Fall 2025
  - Co-instructing the course to cover fundamental topics in Nuclear Energy
  - Class strength: 8

- PNNL (Physicist)
  Alabama A&M University - Radiation Detection Sessions (Speaker) Spring 2025
  - Organized and delivered a seminar series on Nuclear Radiation Detection & Spectroscopy
  - Worked with AAMU faculty to execute hands-on radiation detection experiments

  Radiation Detection Course and Training Summer 2024
  - Delivered a one-week training course to student interns, strength: 4)
  - Developed course materials and hands-on experiments

  Internet of Things Course and Training Summer 2024
  - Led task to deliver a 3-day IoT training course to student interns (strength: 4)
  - Developed hands-on activities using a multi-modal robot crawler

- Khalifa University (Assistant Professor)‡
  Mechanics & Thermal-hydraulics Fall 2019

‡Teaching reviews can be made available upon request.

- Course instructor (undergraduate/graduate students, class strength: 4)
- Developed/graded exams, quizzes, homework

Radiation Science & Health Physics Spring 2019
- Course instructor (undergraduate/graduate students, class strength: 8)
- Developed/graded exams, quizzes, homework

Nuclear Radiation Measurements & Applications Fall 2018
- Course instructor (graduate students, class strength: 3)
- Supervised laboratory experiments related to the course
- Developed/graded exams, quizzes, homework, laboratory reports

- University of Michigan (Postdoctoral Fellow)

Nuclear Measurements Laboratory Winter 2017 & Fall 2016
- Taught few lectures (undergraduate/graduate students, class strength: 21 in 2016)
- Topics covered: general properties of radiation detectors, gamma interactions & spectroscopy, scintillators, photomultiplier tubes & photodiodes, fast neutron detection
- Proposed final examination questions based on the topics covered

- Missouri S&T (Teaching/Research Assistant)

Advanced Reactor Physics Spring 2014-2016
- Taught some lectures of the graduate-level course (class strength: 21,12,6 respectively)
- Topics covered: basics of nuclear physics, diffusion theory and its solutions for different geometries, time-dependent problems, and reactor kinetics
- Graded homework

Fundamentals of Nuclear Engineering Fall 2013 & 2014
- Assisted in teaching (undergraduate students, class strength: 37 in 2014)
- Topics covered: spent fuel recycling, diffusion theory, and reactor kinetics
- Graded homework

Radiation Measurements & Spectroscopy Spring 2014
- Taught 80% of the labs as one of the five lab instructors (class strength: 51)
- Students performed 9 different laboratory experiments
- Actively participated in creation and modification of lab policies, procedures, and quizzes
- Graded lab reports

6 Invited Talks and Papers

[1] **M. Sharma** et al., ''Development of Advanced Radionuclide Gamma spectrOmeter-2 (ARGO-2) for Low-level Radionuclide Measurements,'' Trans. of the Amer. Nucl. Soc., vol. 128, pp 852-853, 2023.

[2] **M. Sharma**, ''Advanced Radiation Detectors for Dual Source Localization,'' CONsortium on Nuclear sECurities Technology (CONNECT-2), University of Texas at San Antonio, Jun 8, 2023.

[3] **M. Sharma**, J. Burnett, ''Gamma Spectroscopy of Uranium Cube from World War II,'' Department of Chemistry, Alabama A&M University, Jan 19, 2023.

[4] **M. Sharma**, ''Unleashing your Potential: Channelizing Energy,'' Zakir Husain College of Engineering & Technology, India, Dec 16, 2022.

7 Technical Reports

[1] J. Ely, N. Deshmukh, K. Everham, **M. Sharma**, Mital Zalavadia, ''Improving the On-Line Enrichment Monitor (OLEM) with Advanced Algorithms and Software,'' PNNL-37549, 2025.

[2] M. Foxe, T. Goldberg, M. Huh, R. Michaels, A. Peddicord, **M. Sharma** et al., ''Climate Change and the International Monitoring System,'' PNNL-36894, 2024.

[3] **M. Sharma** et al., ''A Parametric Study of a Detector for Measuring Radioxenon,'' Pacf. Northw. Natl. Lab., (2024, undergoing internal review).

[4] E. Machorro, **M. Sharma**, T. White, D. Kasparek, ''Improved Tomographic Gamma Scanner Assay,'' PNNL-37027 (33657), 2024 (2022).

[5] A. Garza, **M. Sharma**[§] et al., ''Internet of Things Training Modules,'' Training at PNNL, Richland, WA, PNNL-SA-200310, Jul 15-17, 2024.

[6] **M. Sharma**[§] et al., ''Radiation Detection Training Course Modules and Experiments,'' Radiation Detection Course Training at PNNL, Richland, WA, PNNL-SA-200255, Jul 8-12, 2024.

[7] J. Inman, M. Keillor, W. Kernan, M. Moore, **M. Sharma**, and J. Slack, ''Modeling a CZT Gamma-Gamma Coincidence Spectrometer for a MSR Safeguards Study,'' PNNL-36048, 2024.

[8] A. Couture, B. Archambault, K. Bertschinger, K. Crockett, R. Perea, A. Puyleart, **M. Sharma**, ''LYNM PE1A Radioxenon Concentration Calculations,'' PNNL-35821, 2024.

[9] J. Ely, B. Abromeit, J. Burnett, T. Hallen, W. Harper, J. Hayes, R. O'Mara, **M. Sharma**, R. Suarez, ''Sample Bottle Measurements of the Xe-127 Tracer from the REACT Experiment,'' PNNL-30603, 2023.

[10] **M. Sharma** et al., ''Characterization and Operating Voltage Determination of ^{3}He Neutron Detectors,'' PNNL-32896, 2022.

[11] **M. Sharma**, J. Burnett ''Development and Experimental Validation of Coincidence Analysis and Radionuclide Quantification Software,'' Pacf. Northw. Natl. Lab., 2021.

[12] **M. Sharma**, J. Burnett, A. Myers ''Improvements in Sensitivity at Future Radionuclide Aerosol Monitoring Systems using Advanced Gamma-Spectrometry Techniques,'' PNNL-31295, 2021.

[13] C. Johnson, J. Slack, **M. Sharma**, C. Simpson, and J. Burnett, ''Modeling of Fission and Activation Products in Molten Salt Reactors and their Potential Impact on the Radionuclide Monitoring Stations of the International Monitoring System,'' PNNL-30603, 2020.

8 Computer Skills

- *Programming:* Python, MATLAB, ROOT, C++ — *Monte Carlo Codes:* MCNP, Geant4
- *Working Platforms:* Windows, MacOS, Linux — *Others:* LaTeX, Adobe Illustrator, HTML

9 Leadership Experience & Activities

- Tennessee Tech, ME Graduate Committee, Member (2025)
- American Nuclear Society Meeting, Session Co-chair (2024), Chair (2017)
- STEMCon, Washington State University Tri-Cities, Robotics Demonstration (2025)
- PNNL, Delta High School - STEM Ambassador in the Classroom (2024-Present)
- PNNL Recruiting Champions, Pilot Group Member (2024)
- PNNL-Interview Panel, Physicist Hiring (2022, 2024)
- Washington State Opportunity Scholarship, Mentor (2021)
- United Arab Emirates-Federal Authority of Nuclear Regulation, Rad. Prot. Commtt. (2019)
- Khalifa University-Interview Panel, Graduate Students and Postdocs Hiring (2019)
- Khalifa University-Undergraduate Curriculum Committee (2018)
- U-Michigan, Undergraduate Research Opportunity Program, Mentor (2017-2018)
- Missouri S&T-What About Grad School, NE Representative (2015)
- Missouri S&T-NE Summer Camp, Lead Counselor (2014-2015)
- American Nuclear Society Standards Committee, Student Associate Member (2014)
- Missouri S&T-Power Pitch Program, Coordinator (2014)
- Missouri S&T-MATLAB/MCNP Sessions, Organizer/Speaker (2014)
- Missouri S&T, India Association, Department Representative (2012)
- Missouri S&T, Council of Graduate Students, Department Representative (2011-2012)
- IIT Kanpur, Counselling Service, Link Student (2010-2011)

[§]Dr. Sharma is the Task Lead and supervised the training.

10 Honors & Awards

- PNNL, Outstanding Performance Award (2024)
- PNNL, Laboratory Director's Award for Outstanding Contributions to STEM Education (2023)
- American Nuclear Society-Rad. Prot. & Shiel. Division, Exec. Commtt. (2023, News coverage here)
- Khalifa University, Faculty Start-up Grant (2018)
- Missouri S&T, KMST Public Radio Appearance (2016)
- Missouri S&T, Dissertation Completion Fellowship, One of the 11 Students (2015)
- Missouri S&T, Casting Call[¶] (2015)
- Graduate Leadership Development Program, One of the Five Students (2014)[‖]
- Women in Nuclear National Conference, One of the 36 Sponsored Students (2013)
- Missouri S&T, Graduate Assistantship (2011-2015)
- Missouri S&T, VPGS Scholars Fellowship (2011)
- Scholarship for Higher Education (M.Tech., Top 2.1%) (2009-2011)
- Secured Third Rank in Senior High School (2004)
- Missouri S&T, Best Department Representative Award (2011-2012)
- Missouri S&T, Celebration of Nations, Dance Winner (2011)
- IIT Kanpur, Technical Fest-Judge (2011)
- IIT Kanpur, Impressions, Dance Mentor (2010)
- GATECounsellor, Counselor & Volunteer (2010-Present)
- Z.H. College, Technomania, Winner (2008)
- Z.H. College, Laughter Show, Coordinator (2008), Winner (2006)
- Z.H. College, Raaz Mataaz, Winner (2006)
- Z.H. College, Basketball, Runner (2006)

11 Volunteer Work

- PNNL
  - American Physical Society-Climate Visit, Focus group (2022)
  - Postgraduate Research Symposium, Judge (2021, 2022)
- Missouri S&T
  - Graduate Fair, NE Representative (2014)
  - NE Jackling Camps, Lead Counselor (2014)
  - Callaway Nuclear Plant 30^{th} Anniversary, Booth Representative (2014)
  - Student Leadership Conference, Planning Committee (2014)
  - Nuclear Merit Badge Program, Volunteer (2014)
  - NE Summer Camp, Group Counselor (2013)
  - Science Olympiad, Volunteer (2012 & 2013)
  - First Tech Championship, Score Runner (2012)
  - Celebration of Nations, Volunteer (2012 & 2013)
  - Diwali Food Volunteer (2011)
  - Career Fair Volunteer (2011)
  - Graduate Fair Volunteer (2011)
- IIT Kanpur
  - ICARUS Research Conference, Volunteer (2010)
  - Nuclear Energy Workshop, Volunteer (2010)
  - SPIC MACAY, Public Relation Team (2010)
  - XLII Convocation, Volunteer (2010)

[¶]Success story shared on university's website/alumni magazine; appeared in a promotional video to recruit prospective students.
[‖]One of 19 at University of Missouri System level (Columbia, Rolla, St. Louis, Kansas City)

12 Professional Affiliations

- Academic editor, Wiley's Science & Technology of Nuclear Installations (2021-Present)
- Review editor, Radiation Detectors and Imaging, Frontiers in Physics (2021-Present)

- Grant proposal/narrative reviewer (15 reviews): *U.S. National Science Foundation; U.S. Department of Energy-Office of Nuclear Energy; U.S. Department of Energy-Office of Science*

- Conference submissions and other reviews: *IEEE Symposium on Radiation Measurements and Applications (SORMA, 4 abstracts); National Diversity in STEM Conference (NDiSTEM, 3 abstracts); Washington State Opportunity Scholarship (∼50 essay reviews)*[**]

- Journal reviewer (83 reviews of 57 manuscripts): *Scientific Reports-Nature; Nuclear Instruments & Methods in Physics Research-A; Radiation Measurements; Review of Scientific Instruments; IEEE Trans. on Nuclear Science; IEEE Trans. on Plasma Science; Journal of Signal Processing Systems-Special Issue; Applied Radiation Isotopes; Annals of Nuclear Energy; Progress in Nuclear Energy; Nuclear Science and Engineering; Nuclear Technology; Sensors & Actuators A: Physical; Frontiers in Physics; Applied Sciences; Sensors; Metrology; Machines; Radiation; Journal of Nuclear Engineering; International Journal of Environmental Research and Public Health; Journal of Radiation Research and Applied Sciences*

- Member: *American Nuclear Society; U.S. Women in Nuclear; Tau Beta Pi Engineering Honor Society*[††]*; Alpha Nu Sigma Nuclear Engineering Honor Society*[††]

[**]Reviewed essays in 2022 to select Washington students for STEM/health care Baccalaureate/Graduate Scholarship.
[††]Highly selective.