

## **BIODATA**



Name: **Arun Kumar Shrestha**

Address: Damak Municipality ward No 3, Dhukurpani, Jhapa, Nepal

E mail Address: [arundmk1010@gmail.com](mailto:arundmk1010@gmail.com)

Marital Status: Married

Nationality: Nepali

Research Gate Score: 5.8

Phone No: 977-9842620453

Date of Birth: 01/24/1972

Sex: Male

Age: 53

### **Academic Qualification**

S N	Degree	Institute	Completed Year	From	Division
1	School Leaving Certificate	Himalaya Higher Secondary School	July 1989	SLC Board Nepal	First
2	Intermediate of Science	Dharan Campus	June 1993	Tribhuvan University	Second
3	Bachelor of Science	Amrit Science Campus	May 1995	Tribhuvan University	Second
4	Master of Science (Physics)	Central Department of Physics	March 1998	Tribhuvan University	First
6	MPhil by research in physics	Department of Natural Science, School of Science	March 2015	Kathmandu University	Distinction
7	Ph.D.	Central Department of Physics	2025	Tribhuvan University	

### **Work place:**

- Damak Multiple Campus, Damak, Jhapa, Nepal

**Grants received:**

SN	Grant Received	Donor	Amounts
1	MPhil Fellowship Grant on 2013	UGC Nepal	50,000/
2	Travel Grant for India from UGC Nepal on 2013	UGC Nepal	20,000/
3	National Workshop on Active Learning in Optics and Photonics (ALOP-2016)” from 16-20 June, 2016	UGC Nepal	1,00,000/
4	National Workshop on Mathematical Modeling and Scientific Computing with Differential Equations on 17-21 June, 2017	UGC Nepal	1,50,000/
5	Training Course for Physics Teachers to Introduce Nuclear Science and Technology in Secondary School 19-23 June 2022	UGC Nepal	150000/
6	Small Research Development and Innovation Grants-SRDIG on "Electrical conductivity of different sources of water with temperature and concentration of impurities". (2016)	UGC Nepal	1,40,000/
7	The Assessment of Groundwater Quality of Damak Municipality, Nepal	Office of Damak Municipality	2,80,000/
8	Ph.D. fellowship Grants from University Grants Commission Nepal. PhD-078/79-S&T-13	UGC Nepal	9,00,000/

**Research Interest:**

- Surface modification of polymer
- Plasma diagnostics
- Water quality analysis
- Solar radiation
- Environmental radiation

**Memberships:**

- Life membership of Plasma Science Society of India
- Life membership of the Plasma Science Society of Nepal

- Life membership of the Nepal Physical Society

#### **Training and conference participation:**

1. Oral presentation in International Conference “Nuclear Education to Achieve Sustainable Development Goals in Nepal” organized by Makawanpur Multiple Campus, Hetauda from 10-12 May, 2025
2. Oral presentation on First SMC International Conference “Evaluation of natural radioactivity and radiological hazards associated with Nepalese cement” organized by Sukuna Multiple Campus from 19-20 April, 2025
3. Participation in online training on "**Environmental Radioactivity Monitoring and Its Impact for Health Risk Assessment**" organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India, from 06-10 January 2025.
4. Oral presentation in the **28<sup>th</sup> International Conference on Nuclear Tracks and Radiation Measurements** that Gurugram University, Delhi organized from November 6-10, 2023.
5. Oral and poster presentation at **Ph.D. Festival 2023** organized by the Institute of Science and Technology, Tribhuvan University, at the University Campus, Kirtipur, from 9-10, October 2023.
6. Participation in the training program on the topic “**3<sup>rd</sup> International School of Radiation Research**” that was organized by Sri Ramachandra Institute of Higher Education and Research in Chennai, India on 22-23 September 2023
7. Participation in an online faculty development training program on the topic “**Principles of Radiation Detection and Measurement and Experimental Techniques**” organized by IQAC, Ramjas College, University of Delhi, from 3–9 April 2023.
8. Poster presentation in the **1<sup>st</sup> International Conference on Radiation Awareness and Detection in Natural Environments (REDNET-IV)** held in Dehradun, India from March 2-4, 2023.
9. Participation in the workshop organized by **South Asia Center for Medical Physics and Cancer Research (SCMPCR HW 06)** held in Dhaka, Bangladesh, from 11-18 February 2023.
10. Poster presentation in the **5<sup>th</sup> Asian Congress of Radiation Research (ACRR)** held in Mumbai, India, from November 17-20, 2022.
11. Participation in the **third national conference on Radiation Awareness and Detection in Natural Environment** held in India from March 18-20, 2021.
12. Participate in the **regional training course for teachers to introduce nuclear sciences in secondary school through innovative approaches** in Chicago, USA from August 20-31, 2018.

13. **Oral presentation** on Correlation and regression analysis of physic-chemical parameters of river water for the evaluation of percentage contribution to electrical conductivity in the **International chemical congress (ICC2018)** during March 08-10, 2018 at Sauraha, Chitawan, Nepal.
14. Participation on “**International Workshop on Research Trends in Synthesis, Characterization and Application of New Materials**” on 24<sup>th</sup> October 2016, Biratnagar, Nepal.
15. Four-day **Orientation Programme of Fourth Year of Four-Year BSc course on Physics** organized by IOST, TU from July 31 to August 3<sup>rd</sup> 2015 at Hetauda, Nepal.
16. **Poster presentation** on "**29th National Symposium on Plasma Science and Technology and International Conference on Plasma and Nanotechnology**" during December 8-11<sup>th</sup>, 2014 at Kottayam, Kerala, India.
17. **Oral presentation** on Influence of Discharge Voltage and Pressure on the Plasma Parameters in a Low pressure DC Glow Discharge in the **International Conference on Plasma Science and Application (ICPSA2014)** during September 22-24, 2014 at Kathmandu University, Nepal.
18. Participation on **Numerical Experiment Workshop (Research) on Plasma Focus (NEW PF 2014)**, Kathmandu University, Dhulikhel, Nepal on 21 September 2014.
19. Participation on 2-days training on Latex held on Kathmandu University from 5-6<sup>th</sup> June 2014 in Nepal.
20. **Poster presentation** on **National Symposium on Emerging Plasma Techniques for Materials Processing and Industrial Applications (N-SEPMI 2014)**, jointly organized by Power Beam Society of India and Department of Physics University of Pune from 13-15<sup>th</sup> February, 2014 in India.
21. **Poster presentation** on **28<sup>th</sup> National Symposium on Plasma Science and Technology (Plasma-2013)** jointly organized by KIIT University and Plasma Science Society of India from December 3-6<sup>th</sup>, 2013 in India.
22. Seminar on "**The Numerical Experiment Workshop on Plasma Focus (NEW PF 2013)**" held on KU, Dhulikhel, Nepal on September 27 – October 02, 2013.
23. Participation on 2nd PSSI Plasma Scholars "**Colloquium and National Workshop on plasma Devices Technology**", 22-24<sup>th</sup> July 2013, Pilani, Rajasthan, India.
24. Participation on "**Modern Trends in Science and Technology**" from December 28 – 29, 2012, at Biratnagar, jointly organized by Research Council of Science and Technology, Nepal Physical Society, Eastern Chapter and Nepal Biological Society.
25. Workshop cum training on research methodology, 31 May to 6<sup>th</sup> June 2010, Damak, Nepal.
26. **Third regional School on Astronomy and Astrophysics**, 8-12<sup>th</sup> February 2011, Bhadrapur, Nepal.

27. Summer school on **mathematical modeling and scientific computing with differential equation**, 24-28<sup>th</sup> September, 2012, Dhulikhel, Nepal.
28. **International seminar of solar photovoltaic system**, 11-12<sup>th</sup> December 2011, Dhulikhel, Nepal.

### **Publications**

- [1] **A.K. Shrestha** (2020)" Correlation between Global Solar Radiation and Air Temperature in Damak, Nepal " *Damak Multiple Campus Journal*, 8(1), 23-29.
- [2] B. Koirala, R. Ghimire and **A.K. Shrestha** (2020) " Evaluation of Water Quality Index and Physico-Chemical Analysis of Ratuwa River of Damak in Dry Season " *Damak Multiple Campus Journal*, 8(1), 74-84.
- [3] **A.K Shrestha**, A. Thapa, and H. Gautam (2020) "Solar Radiation, Air Temperature, Relative Humidity, and Dew Point Study: Damak, Jhapa, Nepal" *International Journal of Photoenergy* Vol.2019, Article ID 8369231, 7 pages, <https://doi.org/10.1155/2019/8369231>
- [4] R Ghimire, A Mandal, **A.K. Shrestha** (2019) "Comparative Study of Water Quality Index Value of Different River of Damak, Jhapa, Nepal" *IJRRR*, XII(1).
- [5] **A.K. Shrestha**, N Basnet (2018) "The Correlation and Regression Analysis of Physicochemical Parameters of River Water for the Evaluation of Percentage Contribution to Electrical Conductivity" *Journal of Chemistry* Volume 2018, Article ID 8369613, 9 pages. <https://doi.org/10.1155/2018/8369613>.
- [6] **A.K. Shrestha**, N Basnet (2018)"An Evaluation of Physico-chemical Analysis and Water Quality Index of Ratuwa river of Damak, Jhapa, Nepal" *IJRRR*, XI(2).
- [7] **A.K. Shrestha**, N Basnet, C K Bohora and P Khadka (2017, September) "Variation of Electrical Conductivity of the Different Sources of Water with Temperature and Concentration of Electrolyte Solution NaCl" *IJRRR*, X(3), 24-26.
- [8] R Shrestha, **AK Shrestha** and DP Subedi (December 2016) "Optical and Electrical Characterization of Low Pressure DC Glow Discharge" *IJRRR*, IX(4), 42-47.
- [9] S. Dhungana, B. S. Dotel, **A.K. Shrestha**, R. Shrestha, H. B. Baniya and D. P. Subedi ( 2016, December) "Surface Treatment of Polycarbonate by Atmospheric Pressure Discharge (APDBD) Using 50Hz Power Supply" *IJRRR*, IX(4), 17-20.
- [10] **A.K. Shrestha**, (2016, December) "A Survey of Access of Computer and Mobile Technology Among the Students of Class XI (2071) of Damak Multiple Campus" *DMC Journal* 6(2), 67-71.
- [11] H. B. Baniya, R. Shrestha, A. Shrestha, S. Shrestha, J. P. Gurung, **A. K. Shrestha**, and D. P. Subedi ( 2014, December). "Surface Modification of Polycarbonate by Atmospheric Pressure Cold Argon/ Air Plasma Jet" *KUSET*, 10(2), 13-16.

- [12] **A.K. Shrestha**, H. B. Baniya, S. Shrestha and D. P. Subedi (2014, December). "Langmuir Double Probe for Plasma Parameters Measurement' *KUSET*, 10(2), 6-12.
- [13] **A.K. Shrestha**, B. S. Dotel, S. Dhungana, R. Shrestha, H. B. Baniya, U. M. Joshi, D. P. Subedi (2014, November). "Surface Modification of Polycarbonate Using Mesh Electrode at Atmospheric Pressure Discharge at 50Hz" *KUSET*, 10(1), 15-19.
- [14] **A.K. Shrestha**, R. Shrestha, H. B. Baniya, R.B.Tyata, D. P. Subedi and C.S.Wong (2014, June). "Influence of Discharge Voltage and Pressure on the Plasma Parameters in a Low Pressure DC Glow Discharge" *International Journal of Recent Research and Review*, VII(2), 9-15.

## **Publications during Ph.D. Work**

### **International Journals**

- 1) **Shrestha, A.K., Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2024).** Assessment of radioactivity and radiological hazards associated with bricks in eastern Nepal. *Heliyon* 10(2), 1-7. <https://doi.org/10.1016/j.heliyon.2024.e24844>
- 2) **Shrestha, A.K., Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2024).** Assessment of radioactivity in sand samples from eastern Nepal in perspective of radiological hazards. *Radiat. Prot. Dosim.*, 200 (5), 429-436. <https://doi.org/10.1093/rpd/ncad324>
- 3) **Shrestha, A.K., Rai, M., Pokhrel, J., Karki, S., Poudel, D., Karki, S., Niraula, S., Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2023).** A preliminary assessment of spatial variation of water quality of Ratuwa river. *PLoS ONE* 18(5), e0285164-13pp. <https://doi.org/10.1371/journal.pone.0285164>
- 4) **Shrestha, A.K., Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2023).** Evaluation of natural radioactivity and radiological hazards associated with Nepalese cement. *J. Radioanal Nucl Chem*, 333, 2821-2829. <https://doi.org/10.1007/s10967-023-09124-8>

### **National Journals**

- 1) **Karki, D., & Shrestha, A.K. (2024).** An Analysis of the Groundwater for Irrigation Purpose of Morang, Nepal. *DJNSI* 3(3), 316-333.
- 2) **Shrestha, A.K., Rustagi, J., Khatiwada, A., Bhandari, N., Budhathoki, H., Niraula, S., Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2023).** Comparative Study of Drinking Water of Three Different Schools of Damak, Jhapa. *Damak Campus Journal*, 12(1), 1-5. <https://doi.org/10.3126/dcj.v12i1.66786>
- 3) **Shrestha, A.K., Limbu, S., Baral, N., Magar, M., Limbu, A., Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2023).** An exposure to natural background radiation in eastern Nepal. *Damak Campus Journal*, 11(1), 1-7.

4) Shrestha, A.K., Nepal, R., Shrestha, K., Regmi, D. Shrestha, G.K., Shah, B.R., & Koirala, R.P. (2023). Measurement of background radiation in Jhapa, Ilam, Panchthar, and Taplejung districts of Nepal. *Bibechana*, 20(3), 285-289. <https://doi.org/10.3126/bibechana.v20i3.57882>