STANDARD TEMPLATE OF FACULTY PROFILE FOR UPLOADING OF **UNIVERSITY WEBSITE** Title Dr. First DEEPAK Last **TRIPATHI** Name Name Designation ASSISTANT PROFESSOR School /Dept. Name **USAR** A-506, USAR, GGSIPU University, East Delhi Address: Campus, Shahadara-110032, Delhi Phone No. Office (optional) Residence (optional) Mobile Email 1. deepakkrt@gmail.com 2. deepak.usar@ipu.ac.in Web Page (if any) • Electromagnetic Theory, Quantum Mechanics, Mathematical Physics, Subjects Taught Thermal Physics, Electricity and Magnetism, Engineering Physics- I and Engineering Physics-II, Research Methodology, Advanced Plasma **Physics** Areas of • Plasma Physics, Laser Plasma Interaction, Terahertz Radiation Generation, Self-Focusing, Harmonic Generation, Fusion Interest/ Specialization **Energy**, Medical Physics 13 Years Experience (in years) Total Industry Teaching 13 Years

| | Research | 06 Years | |
|-----------------------------------|-------------------------------|---|--|
| Educational Qualification s | UG | Deen Dayal Upadhyay Gorakhpur University, Gorakhpur, UP, India | |
| | PG | Deen Dayal Upadhyay Gorakhpur University, Gorakhpur, UP, India | |
| | Doctorate | Indian Institute of Technology, Delhi (IITD) | |
| | Any other – Diploma in IPR | | |

| Decemb | | | | | |
|--------------------------|--|--|--|--|--|
| Research Publications | 1. Deepak Tripathi, Yachna Tyagi and Keshav Walia, "Laser second harmonic | | | | |
| In Journals | generation in a magnetoplasma assisted by an electrostatic wave" Physics | | | | |
| (last 5 years) | of Plasmas, 24, 043104 (2017). | | | | |
| | 2. Deepak Tripathi, Yachna Tyagi and Keshav Walia,"Investigation of weakly | | | | |
| | relativistic ponderomotive effects on self-focusing during interaction of | | | | |
| | high power elliptical laser beam with plasma", Communication of | | | | |
| | Theoretical Physics., 68, 245-249 (2017). | | | | |
| | 3. Deepak Tripathi, Yachna Tyagi and Keshav Walia, "Ion acoustic wave | | | | |
| | assisted laser beat wave terahertz generation in a plasma channel" Physics | | | | |
| | of Plasmas, 25 , 043118 (2018). | | | | |
| | 4. Keshav Walia and Deepak Tripathi, "Self focusing of elliptical laser beam in | | | | |
| | cold quantum plasma" Optik- Int. Journal of light and Electron Optics, 186, | | | | |
| | 46-51 (2019). | | | | |
| | 5. L Kumar, G Yadav, V Kishore, M Bhushan, M Gairola, D Tripathi "Validation of | | | | |
| | the RapidArc delivery system using a volumetric phantom as per task group | | | | |
| | report 119 of the American association of physicists in medicine", Journal of | | | | |
| | Medical Physics 44 (2), 126 (2019). | | | | |
| | 6. Deepak Tripathi, Yachna Tyagi and Keshav Walia, "Stimulated Raman | | | | |
| | scattering of high power beam in thermal quantum plasma" Optik- Int. | | | | |
| | Journal of light and Electron Optics, 195, 163166 (2019). | | | | |
| | 7. Manindra Bhushan, Girigesh Yadav, Deepak Tripathi," Dosimetric Analysis of | | | | |
| | Unflattened (FFFB) and Flattened (FB) Photon Beam Energy for Gastric | | | | |
| | Cancers Using IMRT and VMAT—a Comparative Study" Journal of | | | | |
| | Gastrointestinal Cancer, 50 , 408–419 (2019). | | | | |
| | 8. Manindra Bhushan, Girigesh Yadav, Deepak Tripathi," Clinical Dosimetric | | | | |
| | | | | | |

| Impact of AAA and Acuros XB on High-Density Metallic Implants in Case of |
|--|
| Carcinoma Cervix" Oncology Journal of India, September 19, 28-37 (2019). |

- 9. Manindra Bhushan, Girigesh Yadav, Deepak Tripathi," Effect of Hip Prosthesis on Photon Beam Characteristics in Radiological Physics" Asian Pacific Journal of Cancer Prevention, 05, 24-34 (2019).
- Keshav Walia, Vinit Kakkar and Deepak Tripathi, "Second harmonic generation of high power laser beam in cold quantum plasma" Optik- Int. Journal of light and Electron Optics, 204, 164150 (2020).
- **11. Deepak Tripathi** and Yachna Tyagi, "Lower hybrid wave assisted laser third harmonic generation in magneto plasma" AIP Advances, 10, 095131, 1-6 (2020).
- 12. **D Tripathi**, M Bhushan, G Yadav, L Kumar, A Dewan, G Kumar, "Effect of hip prosthesis on photon beam characteristics in radiological physics", Asian Pacific Journal of Cancer Prevention: APJCP 21 (6), 1731, 1-10 (2020).

13. Kakkar Vinit, Walia Keshav and **Tripathi Deepak**, Effect of pulse

enhancement on beat wave THz generation in a ripple density magnetized plasma, Optik- Int. Journal of light and Electron Optics, 244 (2021) 167601.

 Kakkar Vinit, Walia Keshav and Tripathi Deepak, Second harmonic generation of intense beam in thermal quantum plasmas under joint action of relativistic-ponderomotive force, Optik- Int. Journal of light and Electron Optics, 244 (2021) 167597.

15. Kakkar Vinit, Walia Keshav and **Tripathi Deepak**, Impact of self-focused high power beam on second harmonic generation in collisional plasmas, Optik- Int. Journal of light and Electron Optics, 226 (2021) 165978.

16. Deepak Tripathi, M Bhushan, G Yadav, L Kumar, S Barik, S Tandon, and P KumarDosimetric Impact of Contrast Medium on Different Photon Energies Using Conformal & IMRT Techniques in the Treatment of Carcinoma Cervix and Its Validation with Indigenous Phantom, Iranian Journal of Medical Physics 19 (2), 125-135 (2022).

17. K Walia, K Singh, **Deepak Tripathi**, "Second harmonic generation of high power Cosh-Gaussian beam in cold collisionless plasma", Communications in Theoretical Physics 74 (10), 105502, (2022).

Papers Published in Conference Proceedings(last 5 years)

NIL

| Books | Applied Physics-I, Fields and Waves, Vayu Education of India, ISBN: 978- |
|------------|---|
| Authored/ | 93- 86000-125 (2016). Applied Physics-II, Modern Physics, Vayu Education of India, ISBN: 978-93- |
| BookVolume | 86000-187 (2017). Engineering Physics, Vayu Education of India, ISBN: 978-93-86000-316 |
| Chapters | (2018). |

| No. of Conferences | National | Attended | | Organized | | | |
|--|---|---|---------|-----------|--|--|--|
| | | 14 | | 5 | | | |
| | International | 12 | | | | | |
| Research Guidance | Awarded | PG | M. Phil | Doctorate | | | |
| | | 19 | | 04 | | | |
| | Undergoing | | | 01 | | | |
| Research Projects | Completed | 01 (Laser driven and particle acceleration) | | | | | |
| | Undergoing | | | | | | |
| Awards & Distinctions | Winner of the science film festival (2022) organized by Swiss embassy, Delhi. Best presentation award in the "Joint ICTP-IAEA College on Plasma Physics" held in Trieste, Italy during 29th October to 09th November, 2018. Awarded travel grant from Council of Scientific and Industrial Research (CSIR), India to participate in the "5th International Conference on the Frontiers | | | | | | |
| | of the Plasma Physics and technology", Singapore, 18-22 April, 2011. 4. Awarded travel grant from Department of Science and Technology (DST), India to participate in the "International Conference on Frontier Topics in Nanostructures and Condensed Matter" London, Ontario, Canada, 09-11 March, 2011 | | | | | | |
| Administrative Assignments Handled | Placement Coordinator M.Sc. Program Coordinator | | | | | | |
| Association with Professional Bodies | Life time member of PSSI, India. Life time member of AAPPS-DPP, Japan. | | | | | | |
| Any other Achievements | | | | | | | |