STANDARD TEMPLATE OF FACULTY PROFILE FOR UPLOADING OF UNIVERSITY WEBSITE

<table>
<tr><td>Title</td><td>Dr.</td><td>First Name</td><td>Pooja</td><td>Last Name</td><td>Rana</td><td rowspan="3">  </td></tr>
<tr><td colspan="2">Designation</td><td colspan="4">Assistant Professor</td></tr>
<tr><td colspan="2">School /Dept. Name</td><td colspan="4">University School of Automation and Robotics (USAR)</td></tr>
<tr><td colspan="2">Address:</td><td colspan="5">Room No. A-213
University School of Automation and Robotics (USAR)
Guru Gobind Singh Indraprastha University, East Campus, Surajmal Vihar, Delhi-110092</td></tr>
<tr><td colspan="2" rowspan="3">Phone No.</td><td>Office</td><td colspan="4"></td></tr>
<tr><td>Residence</td><td colspan="4">(optional)</td></tr>
<tr><td>Mobile</td><td colspan="4">(optional)</td></tr>
<tr><td colspan="2">Email</td><td colspan="3">1. pooja.rana.kmc@gmail.com</td><td colspan="2">2. pooja.usar@ipu.ac.in</td></tr>
<tr><td colspan="2">Web Page (if any)</td><td colspan="5"></td></tr>
<tr><td colspan="2">Subjects Taught</td><td colspan="5">• Engineering Chemistry – I, II
• Atomic Structure, Bonding, General Organic Chemistry and Aliphatic Hydrocarbons
• Chemical Energetics, Equilibria and Functional Group Organic Chemistry-I</td></tr>
<tr><td colspan="2">Areas of Interest/ Specialization</td><td colspan="5">• Material science
• Catalysis; Photocatalysis
• Nanomaterials: Green Synthesis; Water Treatment</td></tr>
<tr><td colspan="2" rowspan="4">Experience (in years)</td><td>Total</td><td colspan="4">1 year 8 months</td></tr>
<tr><td>Industry</td><td colspan="4">• National Fertilizers Limited (August, 2021-October, 2021)</td></tr>
<tr><td>Teaching</td><td colspan="4">• IGNOU Counsellor (March, 2022-September, 2022)
• Roop Nagar No.1 School, DOE (October, 2022-September, 2023)</td></tr>
<tr><td>Research</td><td colspan="4">N.A.</td></tr>
<tr><td colspan="2" rowspan="2">Educational Qualifications</td><td>UG</td><td colspan="4">• B. Sc (H) Chemistry from Kirori Mal College, University of Delhi
• B. Ed from Shyama Prasad Mukherji College for Women, University of Delhi</td></tr>
<tr><td>PG</td><td colspan="4">• M.Sc (Chemistry) from IIT Bombay</td></tr>
</table>

	Doctorate	• Department of Chemistry, University of Delhi
	Any other –	• Forensic science
Research Publications inJournals (last 5 years)		• "*Recent development of covalent organic frameworks (COFs): synthesis and catalytic (organic-electro-photo) applications*" Rakesh Kumar Sharma, Priya Yadav, Manavi Yadav, Radhika Gupta, ***Pooja Rana***, Anju Srivastava, & Manoj Gawande; *Mater. Horiz.* **2020**, *7*, 411-454. **(I.F=15.7)** • *"Unleashing the photocatalytic potential of a noble-metal-free Heteroleptic copper complex-based nanomaterial for an enhanced aza-Henry reaction."* ***Pooja Rana***, Kapil Mohan Saini, Bhawna Kaushik, Kanika Solanki, Ranjana Dixit, & Rakesh Kumar Sharma, (2023). *Nanoscale*, *15*(34), 14007-14017. **(I.F=6.7)** • "*Hierarchical 3D flower-like metal oxides micro/nanostructures: fabrication, surface modification, their crucial role in environmental decontamination, mechanistic insights, and future perspectives.*" Kanika Solanki, Shivani Sharma, Sneha Yadav, Bhawna Kaushik, ***Pooja Rana***, Ranjana Dixit, & Rakesh Kumar Sharma; *Small*, **2023,** *19*(26), 2300394. **(I.F=13.3)** • "*Recent development of covalent organic frameworks (COFs): synthesis and catalytic (organic-electro-photo) applications*" Rakesh Kumar Sharma, Priya Yadav, Manavi Yadav, Radhika Gupta, ***Pooja Rana***, Anju Srivastava, & Manoj Gawande; *Mater. Horiz.* **2020**, *7*, 411-454. **(I.F=8.1)** • *"Cross-dehydrogenative C(sp^3)-C(sp^3) coupling via C-H activation using magnetically retrievable ruthenium-based photoredox nanocatalyst under aerobic conditions.*" ***Pooja Rana***, Rashmi Gaur, Radhika Gupta, Gunjan Arora, Rakesh Kumar Sharma; *Chem. Commun.* **2019**, 55, 7402-7405. **(I.F=6.1)** • *"Development of Heterogeneous photocatalysts by the covalent grafting of metal complexes onto various solid supports"* ***Pooja Rana***, Bhawna Kaushik, Kanika Solanki, Kapil Mohan Saini and Rakesh Kumar Sharma; *Chem. Commun.* **2022**, 58(81), 11354-11377. **(I.F=6.1)** • *"Earth-Abundant Cobalt based photocatalyst: Visible light induced direct (Het)Arene C-H arylation and CO_2 capture"* ***Pooja Rana***, Rashmi Gaur, Bhawna Kaushik, Pooja Rana, Sneha Yadav, Priya Yadav, Priti Sharma, Manoj B. Gawande and Rakesh K. Sharma; *Dalton Trans.* **2022**, 51, 2452-2463. **(I.F=4.6)** • "*Ingeniously designed Silica nanostructures as an exceptional support: Opportunities, potential challenges and future prospects for viable degradation of pesticides*" Rakesh Kumar Sharma, Bhawna Kaushik, Sneha Yadav, Pooja Rana, ***Pooja Rana***, Kanika Solanki, Deepti Rawat; *J. Environ. Manage.* **2022**, *301*, 113821. **(I.F=9.0)**

- "*Unlocking the catalytic potency of a magnetic responsive $CoFe_2O_4$/Ni-BTC MOF composite for the sustainable synthesis of tri- and tetra-substituted imidazoles*" Sneha Yadav, Ranjana Dixit, Shivani Sharma, Sriparna Dutta, Bhavya Arora, Pooja Rana, Bhawna Kaushik, ***Pooja Rana***, Alok Adholeya, Manoj B. Gawande and Rakesh Kumar Sharma; *Mater. Chem. Front.* **2021**, *5*, 7343-7355. **(I.F=8.7)**

- *"Precisely Engineered Type II ZnO-CuS based Heterostructure: A Visible Light Driven Photocatalyst for Efficient Mineralization of Organic Dyes."*Bhawna Kaushik, Sneha Yadav, ***Pooja Rana***, Pooja Rana, Kanika Solanki, Deepti Rawat, R. K. Sharma. *Appl. Surf. Sci.* **2022**, 590, 153053. **(I.F=7.4)**

- *"Tailoring the catalytic activity of cobalt decorated magnetic boron nitride nanosheets in the one-pot synthesis of 3,4-dihydropyrimidin-2(1H)-ones."* Pooja Rana, Ranjana Dixit, Shivani Sharma, Sriparna Dutta, Sneha Yadav, Bhavya Arora, Bhawna Kaushik, ***Pooja Rana*** and Rakesh K. Sharma. *ACS Appl. Nano Mater*. **2022**, 5, 4, 4875–4886. **(I.F=6.2)**

- "*Fabrication of copper-based silica-coated magnetic nanocatalyst for efficient one-pot synthesis of chalcones via A^3 coupling of aldehydes-alkynes-amines*" Priya Yadav, Manavi Yadav, Rashmi Gaur, Radhika Gupta, Gunjan Arora, ***Pooja Rana***, Anju Srivastava, Rakesh Kumar Sharma; *ChemCatChem* **2020**, *12*, 2488-2496. **(I.F=5.5)**

- "*In-situ synthesis of 3-D hierarchical ZnFe2O4 modified Cu_2S snowflakes: Exploring their bifunctionality in selective photocatalytic reduction of nitroarenes and methyl orange degradation"* Bhawna Kaushik, ***Pooja Rana***, Kanika Solanki, Deepti Rawat, Sneha Yadav, Pooja Rana, Dhanaji R. Naikwadi, Ankush V.Biradar, R. K. Sharma. *Journal of Photochemistry and Photobiology A: Chemistry*, **2022**, *433*, 114165. **(I.F=5.1)**

- *"Enhanced Catalysis through Structurally Modified Hybrid 2-D Boron Nitride Nanosheets Comprising of Complexed 2-hydroxy-4-methoxybenzophenone Motif*." Pooja Rana, Ranjana Dixit, Shivani Sharma, Sriparna Dutta, Sneha Yadav, Aditi Sharma, Bhawna Kaushik, ***Pooja Rana***, Alok Adholeya & Rakesh K. Sharma. *Sci. Rep.* **2021,** *11*, 24429. **(I.F=5.0)**

- "*Silica-coated magnetic nanoparticles supported DABCO-derived acidic ionic liquid for the efficient synthesis of bioactive 3,3-di(indolyl)indolin-2-ones.*" Radhika Gupta, Manavi Yadav, Rashmi Gaur, Gunjan Arora, ***Pooja Rana***, Priya Yadav, Alok Adholeya, Rakesh Kumar Sharma; *ACS Omega* **2019**, *4*, 21529-21539. **(I.F=4.1)**

- "*Synergic Effect of type-II ZnO/BiVO4 Magnetic Heterostructures for Visible-Light-Driven Degradation of Bisphenol A and Methyl Violet*" Bhawna Kaushik, ***Pooja Rana***, Deepti Rawat, Kanika Solanki, Pooja Rana, Shallu Sachdeva, Dhanaji R. Naikwadi, Ankush V. Biradar, Manoj B. Gawande, R.K. Sharma. Applied Organometallic Chemistry, **2023**, *37*(1), e6936. **(I.F=4.0)**

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<tr><td></td><td colspan="4">

- "*Ni(II)-loaded magnetically separable nanoreactor scaffold: fabrication and potential catalytic application in confined synthesis of unsymmetrical diaryl sulfides in water.*" Gunjan Arora, Manavi Yadav, Rashmi Gaur, Radhika Gupta, ***Pooja Rana***, Priya Yadav, Rakesh Kumar Sharma*; RSC Adv.* **2020**, *10*, 19390-19396. **(I.F=4.1)**

- *"Magnetically separable type-II semiconductor based ZnO/MoO3 photocatalyst: a proficient system for heteroarenes arylation and rhodamine B degradation under visible light"* Bhawna Kaushik, ***Pooja Rana***, Deepti Rawat, Kanika Solanki, Sneha Yadav, RK Sharma. *New J. Chem.*, **2022**, 46 (18), 8478-8488. **(I.F=3.9)**

- *"A sustainable gateway to access 1,8-dioxo-octahydroxanthene scaffolds via surface engineered halloysite based magnetically responsive catalyst."* Bhavya Arora, Shivani Sharma, Sriparna Dutta, Aditi Sharma, Sneha Yadav, Pooja Rana, ***Pooja Rana*** and Rakesh Kumar Sharma. *New J. Chem.*, **2022**, 46(11), 5405-5418. **(I.F=3.9)**

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<tr><td>Papers Published in Conference Proceedings(last 5 years)</td><td colspan="4">N.A.</td></tr>
<tr><td>Books Authored/ BookVolume Chapters</td><td colspan="4">

- Gunjan Arora, **Pooja Rana**, & Rakesh Kumar Sharma. (2021). Greening Energy Sources. In Green Chemistry for Beginners (pp. 161-203). Jenny Stanford Publishing.
- **Pooja Rana**, Sriparna Dutta, Anju Srivastava, & Rakesh Kumar Sharma (2021). Green Chemistry: Vision for the Future. Green Chemistry for Beginners, 283.

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<tr><td rowspan="3">No. of Conferences</td><td>National</td><td colspan="2">Attended</td><td>Organized</td></tr>
<tr><td></td><td colspan="2">3</td><td></td></tr>
<tr><td>International</td><td colspan="2">7</td><td></td></tr>
<tr><td rowspan="3">Research Guidance</td><td rowspan="2">Awarded</td><td>PG</td><td>M. Phil</td><td>Doctorate</td></tr>
<tr><td>NA</td><td>NA</td><td>NA</td></tr>
<tr><td>Undergoing</td><td>NA</td><td>NA</td><td>NA</td></tr>
<tr><td rowspan="2">Research Projects</td><td>Completed</td><td colspan="3">NA</td></tr>
<tr><td>Undergoing</td><td colspan="3">NA</td></tr>
<tr><td>Awards & Distinctions</td><td colspan="4">

- Member, American Chemical Society, 2019
- Received **Best Poster Presentation Award** in the International Conference on "Advancing Green Chemistry: Building a Sustainable Tomorrow" held in October 2017 at University of Delhi.
- Received **Best Poster Presentation Award** in International Workshop and Symposium on "Green Chemistry and Technology" held in October 2018 at Govt. Dungar College, Bikaner.
- **CSIR-UGC NET JRF** qualified in June 2016

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	➢ **CSIR-UGC NET JRF** qualified in 2017 ➢ **GATE** qualified in 2017 ➢ **R**ecipient of **CBSE-CSSS Scholarship** during B.Sc. in Kirori Mal college, University of Delhi. ➢ **R**ecipient of **MCM Scholarship** during M.Sc. in **IIT BOMBAY.** ➢ **R**eceived **CTET** eligibility certificate in 2014 and 2019.
Administrative Assignments Handled	N.A.
Association with Professional Bodies	N.A
Any other Achievements	N.A