



Faculty Details

Title	First Name	Last Name	Photograph
Designation	Assistant Professor		
Address (Office)	Department Of Zoology, Gargi College Siri Fort Road, New Delhi		
Contact No. (Mobile)	9871358489		
Email	shivani.tyagi@gargi.du.ac.in		
EDUCATIONAL QUALIFICATIONS			
Degree	Institution	Year	
B.Sc (Bot.,Zoo.,Che.)	D.A.V. College, Muzaffarnagar, U.P	1999	
M.Sc (Zoology)	D.A.V. College, Muzaffarnagar, U.P	2001	
M.Phil	C.C.S University Campus, Meerut, U.P	2003	
Ph.D	University of Delhi, Delhi	2010	
NET, JRF, SRF	CSIR	2002	
CAREER PROFILE			
<ol style="list-style-type: none">Assistant Professor in Department of Zoology, Gargi College, University of Delhi, October 2015 till date.Assistant Professor (Ad Hoc) in Gargi College, University of Delhi, November 2010 - October 2015.Assistant Professor (Ad Hoc) in Daulat Ram College, University of Delhi, February 2010 – March 2010Assistant Professor (Ad Hoc) in Maitreyi College, University of Delhi, January 2010- April 2012 and SeptemberAssistant Professor (Ad Hoc) in Shivaji College, University of Delhi, 2012 <p>Doctor of Philosophy: On the topic, "Studies on soil health of Himachal soil using 16SrRNA gene, <i>nifH</i> gene and soil enzymes" under the supervision of Dr. D. K. Singh from Department of Zoology, Delhi University</p> <p>Master of Philosophy: On the topic, "Studies on Haemocytes of <i>Periplaneta americana</i> Linn." Under the supervision of Prof. H. S. Singh from C.C.S University Campus, Meerut</p>			
ADMINISTRATIVE ASSIGNMENTS			
Co-Convenor Placement and carrier counselling cell.			
Teacher in Charge- Department of Zoology, (2020-2022)			
Member- NSS,			
Member- Building and maintenance Cell			

Coordinator (Life Sciences, Zenith) (2018-2020)
AREAS OF INTEREST / SPECIALIZATION
Entomology
SUBJECT TAUGHT
<ul style="list-style-type: none"> Ecology, Cell Biology, Environmental Sciences, Animal Diversity (Non-Chordata, Chordata) Wildlife Conservation & Management, Food, Health & Nutrition, Biology, Research Methodology, Sericulture
RESEARCH GUIDANCE
<p>Innovation Project-Delhi University 2015-2016 Ecobiotechnological approaches for biowaste utilization: Biopolymer and Biofuel Rs 6,00,000/ with Dr, Shashi Tyagi And Dr. Memtesh- 10 students were trained in the project.</p> <p>DBT Star College scheme (2014-2015), entitled- "Enrichment and isolation of endosulphan degrading bacteria from soil". Six students were trained in the project.</p> <p>3-DBT Star college scheme (2013-2014) "Biochemical characterization of bacterial isolates for their application in biowaste hydrolysis" Six students were trained in the project.</p>
REFRESHER COURSE/ORIENTATION PROGRAMME/FACULTY DEVELOPMENT PROGRAMMES ATTENDED:
<ol style="list-style-type: none"> Completed One-week Online FDP entitled, 'Creation and development of MOOCs while managing online classes' 24.08.2021 to 31.08.2021 organised by Keshav Mahavidyalaya in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi. Successfully completed One Week National Faculty Development Program on "Learning Management System (MOODLE) For Online Teaching-Learning" organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD. 11 - 17 October 2020 Completed One-week Online FDP entitled Assessment and Evaluation in Higher Education 27.07.2020 to 31.07.2020 CREATES, IISER Bhopal under PMMMNMTT Scheme of MHRD Completed one-week Online FDP on Development of Teacher's e-Kit and MOOCs in Four Quadrant Format of e-Content 12.09.2020 to 20.09.2020 PMMMNMTT of MHRD and GADTLC, SGTB, D.U Attended Faculty Development Program at Kamla Nehru College, University of Delhi entitled, "eCognitio: An Innovative E-learning Workshop Promoting Student Participation and Collaborative Learning" on 23rd May 2016. Attended Faculty Development Program at University of Delhi, CIC- Centre for Science Education and Communication, entitled, Faculty Development Program in Research Project Management Proposal to publication and beyond" on 19th July 2016. Attended 119th Four week Orientation Program at UGC- Human Resource Development Centre, Jamia Millia Islamia from 01.8.17 to 29.8.17. Attended Lecture workshop on Department of Zoology, Gargi College, University of Delhi in association with Science Academies lecture workshop on Ingenuity in Biological Sciences on 11-12 January, 2018. Attended National Symposium cum Faculty Development Programme on Genome Editing : Tools and Applications and gave an e-poster presentation from 15.01.18-22.01.18 organized by D.S.Kothari Centre for Research and Innovation in Science Education, Miranda House,

University of Delhi.

10. Attended Faculty Development Program on Wildlife Conservation and Management held on 19th February 2018, at Sri Venkateswara College, University of Delhi, under the aegis of DBT star status.

PUBLICATIONS PROFILE

1. ” Challenges and Perspectives of Polyhydroxyalkanoate Production From Microalgae/Cyanobacteria and Bacteria as Microbial Factories: An Assessment of Hybrid Biological System” Name of the Journal, *Frontiers in Bioengineering and Biotechnology* Year **2021**, Volume **no 9**. and Page **no.109, 624885**, <https://doi.org/10.3389/fbioe.2021.624885>
2. **Shivani Tyagi***, Mamtesh Singh, Gajendra Pratap Singh, Rukhsar Afreen, Nancy Kaushik , Aanchal Pruthi, Dashleen Kaur, Deachen Chosnit (2021). Exploiting Biological Waste Hydrolysate for its Management and Biological Polymer Production: Parameter Optimization and Biological Process Modeling *J.Env.Bio-Sci.*, Vol.35 (1), June-2021 : 1-10.
3. **Shivani Tyagi** and Dileep K. Singh (**2014**) *Pseudacidovorax austerolens* sp. nov., a *nifH* bacterium isolated from Himalayan mountain valley soil, India, Accepted for publication in *Annals of Microbiology*. DOI: 10.1007/s13213-014-0852-9. **Impact factor: 1.039, ISSN-1590-4261**
4. **Shivani Tyagi** and Dileep K. Singh (**2014**) *Azospirillum himalayense* sp. nov., a *nifH* bacterium isolated from Himalayan Valley soil, India. *Annals of Microbiology*, DOI-10.1007/s13213-013-0658-1. March 2014, Volume 64, Issue 1, pp 259-266. **Impact factor: 1.039, ISSN-1590-4261**
5. **Shivani Tyagi**, Jitendra Singh and Dileep K. Singh (**2015**) Maize plant growth, soil enzyme activities and bacterial population as affected by soil organic amendments. In *Proceedings of 2nd International conference on Applied Sciences, environmental engineering and energy technology for sustainable development ASET- 2015*, Krishi Sanskriti, JNU, New Delhi. pp 42-46. **ISBN: 978-81-930585-1-0.**

E CHAPTERS/STUDY MATERIALS

1. Book Chapter- **Shivani Tyagi**, contributed a chapter “Introduction to research methodology” in a book titled “Research Methodology for the Undergraduate Students”, published by Rastogi Publications.
2. Edited book-*Microbial Products Applications and Translational Trends* -edited by Mamtesh Singh, Gajendra Pratap Singh, Shivani Tyagi, ISBN 9781032308203-by CRC Press-Routledge Taylor & Francis Group

PAPERS PRESENTED IN INTERNATIONAL/NATIONAL CONFERENCES/SEMINARS/SYMPOSIA

- Polyphasic taxonomy of bacterial strain ptl-1^T isolated from mountain valley soil in India. **Shivani Tyagi** and D. K. Singh (**2009**) *3rd Congress of European microbiologist at Gothenburg, Sweden*, A-151-0048-02350.

- Polyphasic taxonomy of *nifH* positive bacterial strain pti-3^T isolated from mountain valley soil in India. **Shivani Tyagi** and D. K. Singh (2009) 3rd Congress of European microbiologist at Gothenburg, Sweden, A-151-0028-02325.

CONFERENCE/SEMINARS/SYMPOSIA/WEBINARS/PRESENTATIONS/ORGANIZATION

- Rukhsar Afreen, Mamtesh Singh, Shivani Tyagi and Shiv Kumar Giri, "Microbial community based bioplastic Production from sweetlime fruit waste" Number: 88 at ICRABR-2022 3rd International Conference on Recent Advances in Bio-energy Research – 2022
- Rukhsar Afreen, Shiv Kumar Giri, Shivani Tyagi and Mamtesh Singh LS29- Microbial utilization of Fruit waste in production of green plastics. in National Conference on Natural Sciences- Exploration through Innovations, May 27-28, 2022 at School of Basic and Applied Sciences, Maharaja Agrasen University, Baddi, Solan (HP).
- Attended -Public Lecture/Webinar organized by Rajiv Gandhi Cancer Institute and Research Centre on "**Community Based Cancer Prevention and Screening**" by **Dr. R. A. Badwe** (Director- TMC, MUMBAI) on Friday 8th October 2021.
- Tyagi S, Singh M, Talwar J, Tiwari A. "Exploiting biowaste hydrolysis for biowaste management and utilization/ **जैव अपशिष्ट प्रबंधन और उपयोग के लिए जैव अपशिष्ट अवायवीय पाचन का शोषण**" in National Seminar "Use of scientific & technical terminologies in sustainable environment development, its challenges, computational analysis and opportunities" held at Gargi College, on March 14-16, 2019. (1st prize for Best presentation).
- Singh M, Tyagi S, Singh GP, Afreen R. "Hydrolysis of sweet lime fruit waste, its optimization and modeling/ **मौसमी अपशिष्ट के अवायवीय पाचन से बायोपॉलिमर उत्पादन, इसका इष्टतमीकरण और मॉडलिंग**" in National Seminar "Use of scientific & technical terminologies in sustainable environment development, its challenges, computational analysis and opportunities" held at Gargi College, on March 14-16, 2019.
- Chawla H, Kaushik N, Deepika, Yadav A, Kumari H, Malik R, Bhatia C, Bisht K, Panwar A, Tyagi S, Tyagi S, Singh M*. "Hydrolysis of biowaste (sweet lime) in different concentration for production of polyhydroxyalkanoates (Bioplastic)" in National conference CIPSE-2016, Department of Chemistry, Gargi College, University of Delhi on September 22-23, 2016.
- Deepika, Yadav A, Kumari H, Malik R, Bhatia C, Kaushik N, Panwar A, Bisht K, Chawla H, Tyagi S, Singh M, Tyagi S*. "Studying the effect of incubation time on hydrolysis of waste (sweet lime) for optimization of PHA production" in National conference CIPSE-2016, Department of Chemistry, Gargi College, University of Delhi on September 22-23, 2016.
- Kaur D, Kaushik N, Verma S, Sharma V, Pruthi A, Jha D, Chosnit D, Tyagi S, Tyagi S, Singh M*. "Studying the effect of biowaste (sweet lime) concentration for efficient hydrolysis for utilization in downstream processes" in National symposium on 'Trends in research and innovations in life sciences at undergraduate level', Deen Dayal Upadhyaya College (DDUC), University of Delhi, New Delhi on March 30, 2016.
- Chosnit D, Kaushik N, Verma S, Sharma V, Kaur D, Pruthi A, Jha D, Bhardwaj H, Tyagi S, Tyagi S, Singh M. "Hydrolysis of biowaste as the promising strategy for downstream utilization: Studying the effect of incubation time" in National symposium on 'Trends in research and innovations in life sciences at undergraduate level', DDUC, University of Delhi, New Delhi on March 30, 2016.
- Pruthi A, Kaur D, Jha D, Kaushik N, Verma S, Sharma V, Tyagi S, Singh M*. "Exploiting biowaste (sweet lime) hydrolysis and its effect on biopolymer production" in Indo-US workshop on 'Cell Factories', IIT Bombay, Mumbai, India on March 18-20, 2016.

- Jha D, Kaur D, Pruthi A, Kaushik N, Verma S, Sharma V, Gaur K, Singh M, Tyagi S. "Biowaste hydrolysis: An ecofriendly approach for biowaste management and its utilization" in Indo-US workshop on 'Cell Factories', IIT Bombay, Mumbai, India on March 18-20, 2016.
- Enrichment and isolation of endosulfan degrading bacteria from soil. Priyanka Upadhyay, Ruchie. Pathak, Sanjana Kaushik, Richa Rai, Priyanka Singh and **Shivani Tyagi (2015)** Recent Trends In Biology, One day Symposium, Zoology Department, Maitreyi College, University of Delhi, Delhi.
- Usage of urea, corncob and *Azotobacter* as amendment and their impact on bacterial community, soil enzymes and maize plant in soil microcosm. **Shivani Tyagi**, A. S. Bhattacharjee and D.K. Singh (**2011**) Indo-Swiss collaboration in Biotechnology (ISCB) International conference Department of Zoology, University of Delhi, Delhi.
- Effect of different amendments on soil nutrients and microbial Population. Ananda Shankar Bhattacharjee, **Shivani Tyagi**, D.K. Singh, (**2010**) 51st AMI Conference at BIT, Misra, Ranchi, India, December 14-16, AMI 2010 pp 36-37.
- Polyphasic taxonomy of nifH positive bacterial strain pti-2^T isolated from mountain valley soil in India. **Shivani Tyagi**, A. S. Bhattacharjee and D.K. Singh (**2009**) 50th Annual Conference of Association of Microbiologists of India, National Chemical Laboratories, Pune, India.
- Effect of parasitic nematodes on hemocytes of *Periplaneta americana* L. **Shivani** and H. S. Singh (**2003**) 3rd Global meet on parasitic Diseases at Bangalore University

WORKSHOP/TRAINING PROGRAMME/SEMINARS ATTENDED

1. Organized webinar on "Chronobiology: An Introduction" by Prof. Atanu Kumar Pati, Professor Emeritus of Biosciences, PRSU, Raipur, on 15.01.2022.
2. Organized webinar titled "Journey to destination" on UPSC by Mr Raviteja Munikoti, IRS(IT)-2016 Batch and Ms Tejaswini Pusuluri, IFS-2018 Batch on 31.10.2021.
3. Organized webinar on "Entomology in criminal investigations" by Dr. Dharendra Singh Yadav on Organized "3rd hands on workshop on Bioinformatics" held from 5th -10th May, 2020, through Google meet, for Life Science students.
4. Contributed as a co-ordinator and resource person in "Hands on Workshop in Cell Biology", held on February 26, 2018 in Zoology Department, Gargi College.
5. Organized "Hands on Workshop on Bioinformatics", October, 2017 at Gargi College, under Star College Scheme for B.Sc., Life Science Students – Dr. M. Divya Ganeswari, Dr. Smriti Sharma, Dr. Shivani Tyagi and Dr. Chaitali Ghosh
6. Attended Science Academies' Lecture Workshop on Ingenuity in Biological Sciences, from 11-12 January, 2018 Organized by Department of Zoology, Gargi College, University of Delhi □ Attended one day workshop on collaborative learning Entitled, "eCognitio: An Innovative E- Learning Workshop Promoting Student Participation and Collaborative Learning" at Kamla Nehru College, University of Delhi, Delhi on 23th May 2016.
7. Attended an interactive session on "Foldscope" held at Gargi College on 16 December 2015.
8. 1st international conference on "Emerging Trends of Nanotechnology in drug discovery (INDD2014)", organized by Sri Venkateswara College, University of Delhi and Department of Biochemistry, University of Delhi South Campus (UDSC), India in

association with Centro de Quimica da Madeira (CQM), university of Madeira, Portugal, from May 26-27, 2014.

9. One Week International Workshop entitled, “New Frontiers in Global Learning and Communications”, December 2013 – 2nd January 2014 at Shaheed Raj guru College of Applied Sciences for Women University of Delhi in collaboration with University of Massachusetts Boston.
10. One day Workshop on “Culture of Responsibility” By American Society for Microbiology, 2nd September 2013 at Maitreyi College, University of Delhi

RESEARCH PROJECTS (MAJOR GRANTS/RESEARCH COLLABORATION)

Research Projects : Completed– 1- Innovation Project–Delhi University 2015-2016 Ecobiotechnological approaches for biowaste utilization: Biopolymer and Biofuel Rs 6,00,000/ with Dr, Shashi Tyagi And Dr. Memtesh

AWARDS AND DISTINCTIONS

Awarded Gold Medal and Certificate for highest marks in College at Post Graduation level.

Awarded Vice Chancellor’s Student Travel Grant in 2009 for poster presentation in Swedan.

ASSOCIATION WITH PROFESSIONAL BODIES

Life Member of Association of Microbiologists of India

OTHER ACTIVITIES

Co-convenor in the National conference on “Use of Scientific & Technical Terminologies in Sustainable Environment Development, its Challenges, Computational Analysis and Opportunities” held at Gargi College from 14-16th March, 2019, with support from Commission for Scientific and Technical Terminology, Ministry of Human Resource Development, Department of Higher Education, New Delhi

Co-Convenor Placement and carrier counselling cell. Teacher in Charge- Department of Zoology, Member-NSS, Member- Building and maintenance Cell