



# Shivaji College Faculty Details Proforma

Title		First Name		Last Name		Photograph
-	Dr.		Misha		Yadav	
Designation		Assistant Professor				
		Department of Botany, Shivaji College, University of Delhi, Ring Road, Raja Garden, Delhi - 110027				
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Web-Page						
Educational Qualifications		M.Sc., Ph.D.				
Degree		University/Institute				Year
		Department of Botany, University of Delhi				2011
M.Phil./M.Tech		-				-
PG		Miranda House, University of Delhi				2006
UG		Daulat Ram College, University of Delhi * <b>(DU Gold</b> medallist)				2004
Any Other		CSIR-JRF/SRF-NET			2006	
Career Profile						

- Assistant Professor, Academic Level-12 (Selection grade) since March 2021.
- Assistant Professor, Academic Level-11 (Senior grade) since March 2016-2021.
- Working as Assistant Professor in Delhi University since 2011.
- Ph.D. degree awarded in 2011. Title of Ph.D. thesis "Investigations on lipoxygenase and lipolytic activities during seed germination in sunflower".

#### Administrative Assignments

- Convenor, TEDxShivajiCollege (2022-2023, 2023-2024)
- Convenor, Equal opportunity cell: SC, ST, OBC Counselling (2023-2024)
- Convenor, Garden Committee (2021-2022, 2022-2023)
- Co- Convenor, Admission Committee (2023-2024)
- Teacher-in-Charge, Department of Botany, Shivaji College (academic year 2020-2021; 13.1.2020 to 25.2.2020)
- Admission Convenor and In-charge for B.Sc. Prog. Life Sciences course (2019-2020)

## **Member of Staff Council Committees**

- Member, Library Committee (2021-2022, 2022-2023, 2024-2025)
- Member, SC, ST, OBC Counselling Committee member (2016-2017, 2017-2018, 2024-2025)
- Member, General Counselling for Admissions (2021-2022, 2022-2023)
- Member, Screening Committee for shortlisting applicant for the post of Assistant Professor in Botany Department) (Sept 2017, January-February 2020, 2023)
- Member, Udhmodya Foundation, Shivaji College (2023-2024)
- Member, G20 Committee (2022-2023)
- Member, Fee Concession Committee (2020-2021, 2021-2022)
- Member, Student Grievance Cell during COVID (2020-2021)
- Member, Internal Assessment Committee (2018-2019, 2019-2020, 2020-2021)
- Member, Garden Committee (2016-2017, 2017-2018)
- Member, Student Advisory Committee (2014-2015, 2015-2016, 2018-2019, 2019-2020, 2020-2021)
- Member, Eco-Club (2014-2015, 2015-2016, 2016-2017, 2018-2019, 2019-2020)

Also, was member of various departmental committees since 2011 till date

## Areas of Interest/Specialisation

Botany, Economic Botany, Plant Anatomy, Plant physiology

Subjects Taught

Papers taught: Introduction to Biology, Plant Anatomy, Plant resource utilization and economic botany, Plant Biotechnology, Plant physiology and metabolism, Biodiversity (microbes, algae, fungi and archegoniatae), Mycology and phytopathology, Industrial and environmental microbiology, Genetics, Cell biology, Biology – II, Biodiversity III - Plants, Biostatistics, Developmental biology, Ecology, Cell and molecular biology, Plant cell and developmental biology, Archegoniates, Genetics and Genomics, Environmental Studies

# Innovation Project/Research Projects (Major Grants/Research Collaboration)

Principal Investigator (PI) of Innovation project 'A comparative chemical analysis of commercially available edible oils for their efficacy for human consumption, using defined parameters' (SHC-310) sanctioned by University of Delhi, during year 2015-2016. The project work was selected for 'Research Display at the Convocation ceremony' held on November 19, 2016 and was also awarded Certificate for 'Most Significant Societal Impact'.

# Publications Profile (Research Papers/Books)

- Yadav M and Bhatla SC. (2021). Oil Body Biogenesis and Expression of Structural and Regulatory Proteins during Seed Development in Sunflower. In: Gorawala P and Mandhatri S (Eds.), Agricultural Research Updates. Volume 34 (pp. 1-39) Nova Science Publishers, Inc. New York
- Yadav M, Tripathi S and Yadav D (2016) Trap Cropping: An organic pest control management method. Contemporary Plant Science Volume 2, pp 1-3 (ISSN: 2393-8676)
- Developed e-contents for chapter titled 'Lipid Metabolism' under MHRD project 'National Mission on Education through Information Communication technology (NME-ICT)' for Institute of Life Long Learning, University of Delhi (e-book chapter) in year 2016.
- Developed e-contents for chapter titled 'Concept of Metabolism' for undergraduate course, for MHRD project 'National Mission on Education through Information Communication technology (NME-ICT)' for Institute of Life Long Learning (e-book chapter) in year 2015.
- 5. Yadav M and Bhatla SC (2015) Photomodulation of fatty acid composition and lipoxygenase activity in sunflower seedling cotyledons. Acta Physiologia

Plantarum. DOI 10.10007/s11738- 015-1891-y. ISSN: 0137-5881 (Print) 1861-1664 (electronic version).

- Yadav MK and Bhatla SC (2011) Localization of lipoxygenase activity on oil bodies and in protoplasts using a novel fluorescence imaging method. Plant Physiology and Biochemistry 49: 230-234. ISSN: 0981-9428
- Bhatla SC, Kaushik V and Yadav MK (2010) Use of oil bodies and oleosins in recombinant protein production and other biotechnological applications. Biotechnology Advances 28: 293-300. ISSN: 0734-9750
- Kaushik V, Yadav MK and Bhatla SC (2010) Temporal and spatial analysis of lipid accumulation, oleosin expression and fatty acid partitioning during seed development in sunflower (*Helianthus annuus* L.). Acta Physiologiae Plantarum 32: 199-204. ISSN: 0137-5881

# Conference/Seminar/Faculty Development Programme/Workshop

Oral presentations in International/ National conferences – 7 Poster presentations in International/ National conferences – 15 Conference/Seminar participation – more than 50 Member, organising committee for workshops, seminars, conferences, other events in college – more than 30

# Orientation Course, Refresher Courses, FDPs completed

- Completed One-Week Online Faculty Development Program (and obtained grade A<sup>+</sup>) on the topic "Academic writing for research" organized by Teaching Learning Centre (TLC), Ramanujan College, University of Delhi, in collaboration with M.O.P. Vaishnav College For Women (Autonomous) Chennai, Tamil Nadu, under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), from October 11-17, 2021.
- 2. Completed One-Week Online Faculty Development Program (and obtained grade A<sup>+</sup>) on "Psychological Skills for Effective Teaching and Learning" organized by Teaching Learning Centre (TLC), Ramanujan College, University of Delhi, under the aegis of MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), from August 14-20, 2021.
- 3. Completed One-Week Online National Faculty Development Program (and obtained grade A<sup>+</sup>) on the topic "Assessment and Evaluation in Higher Education" organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College,

University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education, from July 14-20, 2021.

- 4. Completed two-weeks Faculty Development Programme on "Managing Online Classes And Co-Creating MOOCs 3.0" organized by Teaching Learning Centre (TLC), Ramanujan College in association with Research Development and Services Cell, Ramanujan College, University of Delhi, under the aegis of MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) from 25 July 2020 to 10 August, 2020
- 5. Completed two-weeks Faculty Development Programme on "Advanced Concepts for Developing MOOCS" organized by Teaching Learning Centre (TLC), Ramanujan College, University of Delhi, under the aegis of MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) from 2 July, 2020 to 17 July, 2020
- 6. Completed one-week Online Short-Term Course on "Inclusive Learning Environment" conducted through a MOOC platform organized by Inter University Centre for Disability Studies (IUCDS), Mahatma Gandhi University, Kottayam, Kerala in collaboration with MES's Pillai College of Education and Research, Chembur from 10 June, 2020 to 18 June, 2020
- 7. Attended one week Faculty Development Program on "Biomathematics" organized by Shivaji College, University of Delhi, in collaboration with Mahatma Hansraj Faculty Development Centre (MHFDC), Hansraj College, University of Delhi, from August 1-7, 2019
- Attended one week Workshop on MOOCs, e-Content Development and Open Education Resources conducted by UGC-HRDC, Jamia Millia Islamia University, New Delhi from February 25, 2019 to March 2, 2019
- Attended Interdisciplinary Faculty Development Program (FDP) on "Effective Teaching and Learning Practices" organized by Shyama Prasad Mukherji College for Women, University of Delhi from 22-26 September 2018.
- 10. Attended Faculty Development Programme Industrial and Environmental Biotechnology' organized by Department of Botany, Daulat Ram College, University of Delhi held on 19-20 March 2018.

- 11. Attended Faculty Development Program (FDP) in 'Biostatistics: Theoretical and Practical Aspects' organized by Deen Dayal Upadyaya College, University of Delhi from 14-18 March 2018.
- 12.Participated in UGC sponsored three weeks Interdisciplinary Refresher course in "Contemporary Issues of the World" conducted by the Centre for Professional Development in Higher Education (CPDHE), University of Delhi from 27 November to 17 December 2018.
- 13.Participated in UGC sponsored four weeks 'Orientation Programme (OR 82)' conducted by the Centre for Professional Development in Higher Education (CPDHE), University of Delhi from November 17, 2015 to December 15, 2015.
- 14.Participated in UGC sponsored three weeks 'Refresher course in Life Sciences' conducted by the Centre for Professional Development in Higher Education (CPDHE), University of Delhi from December 09-30, 2014.

# **Research Guidance (Supervision of Doctoral Thesis/Dissertations)**

## Awards and Distinctions

- Received 'National Environmental Education and Awareness Award' conferred by International Association for Educators for World Peace (affiliated to United Nations: ECOSOC, UNDPI), Indian Institute of Ecology and Environment and National Institute of Cleanliness Education and Research, during 44<sup>th</sup> Foundation Day of Indian Institute of Ecology and Environment, at India International Centre, New Delhi on June 5, 2023 (shared with co-receipients).
- Awarded 'Certificate of Appreciation' and 'Certificate of Most Significant Societal Impact' (shared with co-investigators) for Innovation Project (SHC-310) titled," A comparative chemical analysis of commercially available newer brands of edible oils for their highlighted benefits for human consumption" for being selected for Research Display at Convocation Ceremony, University of Delhi on November 19, 2016.
- Received 'Best Presenter Award' for presenting oral presentation titled "Lipoxygenase and associated lipolytic activities in sunflower cotyledons" in National Seminar on 'New Frontiers in Plant Sciences and Biotechnology' organized by Department of Botany, Goa University, Goa on January 29-30, 2015.

- Received **2<sup>nd</sup> Best Poster Award** for Co-presenting a poster titled "Recent developments in pharmaceuticals and related biotechnological applications of oilseed-derived oleosins" in the first INDO-DANISH DU-SDU Seminar on 'Emerging Trends in Interfacial Areas of Chemical, Biological and Environmental Sciences' organized by Department of Chemistry, University of Delhi and Department of Physics and Chemistry, University of Southern Denmark in March 2008.
- University Post Graduate Scholarship, Delhi University, 2005-2006.
- University Post Graduate Scholarship, Delhi University, 2004-2005.
- Laksmi Krishnaswami Prize, Miranda House, Delhi University, 2006.
- Certificate of Merit, Miranda House, Delhi University, 2004-2005.
- **University Medal**, Delhi University, 2004 for securing first rank in University during graduation (all three years combined).
- Science Meritorious Award, Delhi University, 2003-2004.
- **Daulat Ram College Teacher's Instituted Prize**, Daulat Ram College, Delhi University, 2003-2004.
- **Certificate of Merit**, Daulat Ram College, Delhi University, 2003-2004 (for all three years combined).
- **Certificate of Merit**, Daulat Ram College, Delhi University, 2003-2004 (for IIIrd year)
- Science Meritorious Award, Delhi University, 2002-2003.
- **Silver Jubilee Merit Scholarship**, Daulat Ram College, Delhi University, 2002-2003.
- Certificate of Merit, Daulat Ram College, Delhi University, Delhi, 2002-2003.
- Science Meritorious Award, Delhi University, 2001-2002.
- **Silver Jubilee Merit Scholarship**, Daulat Ram College, Delhi University, 2001-2002.
- Shri Asha Nanda Memorial Silver Medal, Daulat Ram College, Delhi University, 2001-2002.
- Certificate of Merit, Daulat Ram College, Delhi University, 2001-2002.

## Memberships

- 1. Indian Society of Analytical Scientists Delhi chapter (Life Member)
- 2. The Indian Science Congress Association (Life member)
- 3. Delhi University Botanical Society (Life member)
- 4. Indian Society for Plant Physiology (Life member)

5. Society for Ecological Research and Natural Resource Management (Life member)

# Other Academic Activities <u>Convenor/Resource Person/ Organizing Committee member</u>

- **Convenor**, National Webinar on "Impact of Coronavirus on Human Central Nervous System: Latest updates and trends" organized by Department of Botany, Shivaji College, University of Delhi held on January 16, 2021
- **Convenor**, National Webinar on "Decolorization and detoxification of textile waste waters using laccases of Cyathus bulleri" organized by Department of Botany, Shivaji College, University of Delhi held on January 21, 2021
- **Convenor**, Online Workshop on "Mushroom Cultivation" organized by Department of Botany, Shivaji College, University of Delhi on March 6, 2021
- **Convenor,** Workshop on "Transition towards sustainable future: Comparative perspectives from across the globe" organized by Department of Botany, Shivaji College on February 26, 2020.
- **Convenor,** one day Workshop on "Applications of Geo-Informatics in Biology" organized by Department of Botany, Shivaji College on March 30, 2019.
- **Resource person,** for session on the topic "Microscopic and Anatomical methods"; Hands on training on "Microscopic study of surface structure and anatomy of herbs" on June 19, 2024 during Summer Training Programme organized on theme 'Methods of Quality Control for Medicinal Herbs and Preparations' organized by Department of Botany (Under the aegis of the DBT Star College Scheme) held on June 18-26, 2024.
- **Resource person** for session on the topic 'Active phytochemicals in medicinal plants' during Summer training programme organized by Department of Botany, Shivaji College under the aegis of DBT Star College Scheme on June 19, 2023.
- **Resource Person** for talk on "Haploid production via Tissue Culture" in the Summer training programme on "Innovative Natural Resource Management Technologies for Youth" organized by Department of Botany, Shivaji College, University of Delhi, under the aegis of DBT Star College Scheme organized from June 20 to July 18, 2022.
- **Resource person** for hands-on session on "Media preparation and Sterilization" as a resource person in the Summer training programme on "Innovative Natural

Resource Management Technologies for Youth" organized by Department of Botany, Shivaji College, University of Delhi, under the aegis of DBT Star College Scheme organized from June 20 to July 18, 2022.

- **Resource Person** in the "Intra-College Laboratory Skill Training Programme for Assistants/Attendants in the Chemical and Life Sciences Laboratories" organized by Shivaji College, University of Delhi, under the aegis of DBT Star College Scheme, held at Shivaji College April 19-25, 2022.
- **Resource Person** in the "Inter-College Laboratory Skill Training Programme for Assistants/Attendants in the Chemical and Life Sciences Laboratories", organized by Shivaji College, University of Delhi, under the aegis of DBT Star College Scheme organized from September 14-20, 2021
- Resource Person in the "Intra-College Laboratory Skill Training Programme for Assistants/Attendants in the Chemical and Life Sciences Laboratories", organized by Department of Botany, Shivaji College, University of Delhi, under the aegis of DBT Star College Scheme organized from August 11-17, 2021.
- **Resource Person** in the four -week Inter-College Online Summer Training Internship on "Tools and Techniques in Plant Sciences: Morphology to Metabolome" organized by Department of Botany, Shivaji College, University of Delhi under the aegis of DBT sponsored Star College Scheme from June 21 to July 19, 2021.
- **Resource Person** in Four week Summer Training Programme on "Tools and Techniques in Plant Sciences: Morphology to Metabolome" Department of Botany, Shivaji College, University of Delhi, Under DBT Star College Scheme organized from July 6 to July 31, 2020.
- **Resource person** for session on centrifuge in Inter College Laboratory Skill Training Programme for Laboratory Assistants and Attendants in Chemical and Life Science Laboratories, organized by Shivaji College, University of Delhi under the aegis of DBT sponsored Star College Scheme, held from November 27 to December 3, 2019
- **Resource Person** for 'Summer Training Programme' on "Microscopy and Herbarium Techniques" for students, organized by Department of Botany, Shivaji College, University of Delhi under DBT sponsored Star College Scheme, held from June 21- July 19, 2019
- **Resource Person** for 'Laboratory Skill Training Programme' for Assistants/Attendants in Chemical and Life Science Laboratories' organized by

Shivaji College, University of Delhi under the aegis of DBT sponsored Star College Scheme, held on May 20-24, 2019

- **Resource person** in the 'INSPIRE Science Camp' held at Shivaji College, University of Delhi, from July 16-20, 2018
- **Resource person** in the Workshop 'Lab Skill Training Workshop for Laboratory Assistants/Attendants in Chemical and Life Sciences' organized by Shivaji College, University of Delhi, from July 10-14, 2017.
- **Resource person** in the INSPIRE (Innovation in Science Pursuit for Inspired Research) Science Camp organized by Shivaji College, University of Delhi, on December 14-18, 2016
- **Resource person** for Technical Session II of Interdisciplinary Workshop 'Sharing Science, Rising Together: Workshop for Faculty of Sciences" organized by Department of Botany, Shivaji College, University of Delhi, on October 1, 2016
- **Resource person** in the Workshop 'Lab Skill Training Program for Laboratory Assistants/Attendants in Chemical and Life Sciences' organized by Shivaji College, University of Delhi, from 31 May to 3 June 2016.

## Cultural/Extracurricular Activities

Events/Programs Convened:

- **Convenor**, **TEDx**ShivajiCollege **event** on the theme **"Perception of Surfaces**" organized by TEDxShivajiCollege team on March 15, 2024.
- **Convenor, TEDx**ShivajiCollege **event** on the theme **"The Web of Life"** organized by TEDxShivajiCollege team on February 25, 2023.
- **Convenor** for the **'Plantation Drive'** organized on the occasion of Teacher's Day by Garden Committee, Shivaji College on September 5, 2022.
- Convenor, Annual Botanical Fest 'Juniper' in 2021

# Field visits/Excursions:

- Organized field visit for educational purposes to 'Neela Hauz Biodiversity Park, Vasant Kunj, Delhi' for students of B.Sc. Hons. Botany Semester III on October 31, 2023.
- Member, organizing team for field excursion (exposure and training on field) to 'CSK Himachal Pradesh Krishi Vishvavidyalaya (HPKV) Palampur, Himachal Pradesh' organized (as a part of Summer Training Programme on "Innovative Natural Resource Management Technologies for Youth" for under graduate

students of B.Sc. Hons. Botany and B.Sc. Prog. Life Sciences, organized by Department of Botany, Shivaji College under the aegis of DBT Star College Scheme) from June 23-28, 2022.

- Organized virtual visit to 'National Dairy Research Institute, Karnal, Haryana' (online) for Under graduate students of B.Sc. Hons Botany Semester VI on March 3, 2022.
- Organized field visit to 'Krishi Mela, Pusa' and institutional visit to 'Department of Microbiology and Department of Blue Green Algae, ICAR IARI, Pusa, Delhi' for students of B.Sc. Hons. Botany Semester IV on March 10, 2022.
- Member, organizing team for field excursion to 'Sultanpur National Park, Gurugram, Haryana' organized by Eco Club of Shivaji College to make inventory of local flora and fauna and study diverse ecosystems, on March 6, 2020.
- Visit to 'CCUBGA, Division of Microbiology, ICAR-Indian Agricultural Research Institute, New Delhi' as a part of one-day workshop on 'Algae and Microbiology' organized by Department of Botany, Shivaji College, in collaboration with CCUBGA, division of Microbiology, ICAR-Indian Agricultural Research Institute, New Delhi for students of B.Sc. Hons. Botanu Semester I on October 1, 2019.
- Organized institutional visit to 'TERI, The Energy and Resources Institute, Gurugram, Haryana' for B.Sc. (Hons.) Botany Semester VI students on February 18, 2019.
- Field visit to **'Yamuna Bio-diversity Park'** to observe World Wetland day with students of B.Sc. Hons. Botany Semester II and IV on February 2, 2019.
- Educational visit to 'Centre for Rural Development and Technology, Indian Institute of Technology, Delhi' for students of B.Sc. Hons Botany Semester IV on April 16, 2018.
- Organized Industrial visit to 'Yakult Danone India Pvt. Ltd., Sonipat, Haryana' for Students of B.Sc. Botany Hons Sem VI on March 27, 2018
- Member, organizing team for academic field visit to 'Kamla Nehru Ridge, Delhi' organized for students of B.Sc. APS, PS, Chemistry, Zoology Hons. Organized on April 7, 2015
- Member, organizing team for field visit to 'Yamuna Biodiversity Park, Delhi' organized for B.Sc. Botany Hons. Semester VI students, for their academic progress on April 20, 2015

<u>Mísha</u>

Signature of Faculty Member