

Name of the Faculty member Dr. Shefali Dhiman**Designation** Assistant Professor and Head**Department name** Chemistry✉ **Email ID** shefalitac@gmail.com☎ **Contact Number** 9814242340**h- Index** 01**i10- Index** 01<https://scholar.google.co.in/citations?user=wFASfNEAAAAJ&hl=en>**Areas of Interest**

- Organic Chemistry
- Bio-organic Chemistry
- Applied Organic Chemistry

Educational details

Degree	Year	University	Percentage	Medals/ Positions
PhD	2008	JNU (IMTECH)		
UGC- CSIR(NET)	2001	UGC		
M.Sc.(Hons School in Chemistry)	2001	Panjab University	76.1%	
B.Sc. (Hons School in Chemistry)	1999	Panjab University	64.8%	

Professional Details

Designation	From	To	Organization
Assistant Professor	1.2.2011	Till Date	MCM DAV College for Women

Awards & Recognitions		
Award	Institute	Year
1 st division till M.Sc, M.Sc with distinction	Panjab University	2001
Joined Institute of Microbial Technology as JRF, the selection was made through rigorous interview, in which candidates from all over India appeared. Cleared JNU Pre Ph.D. Course with CGPA 8.3 (III Rank), total credits 15 (Including theory papers, seminar and term paper)	Institute of Microbial Technology (CSIR)	2002-04
Awarded SRF by IMTECH	Institute of Microbial Technology	2004-2007
Best Poster Presentation Award	Mini symposium: Advances in Organic Chemistry and Chemical Biology (AOCCB), held at IICT, Hyderabad	Jan 11- Jan12, 2006
Best Poster Presentation Award in the Organic and Biochemistry Section	50 th Annual convention of Chemist ^o organized by Panjab University and Indian academy of Sciences	4 th -7 th December, 2013

Research Publications				
Title	Journal	Refereed	Date and Year of Publication	Online Link
Characterization of a novel long chain acyl CoA thioesterase from <i>alcaligenes faecalis</i> -	FEBS Journal	Refereed	2006	https://www.ncbi.nlm.nih.gov/pubmed/16704412
Formation of amyloid fibrils via longitudinal growth of oligomers	Biochemistry	Refereed	2007	https://pubs.acs.org/doi/10.1021/bi7001136
A Catalase-Peroxidase for Oxidation of β -Lactams to their (R)-	Bioresource Technology	Refereed	2011	https://www.ncbi.nlm.nih.gov/pubmed/21996477

Sulfoxides				
Production of Enantiomerically Enriched (S)-Ethyl 4-Chloro-3-hydroxybutyrate	Patent		2013	http://www.allindiaipatents.com/patents/255240-process-for-preparing-enantiomerically-enriched-s-ethyl-4-chloro-3-hydroxy-butyrate
Novel Method for the Preparation of Eco-enzymes	New Horizons	Refereed	2014	
Sulfones in Organic Synthesis	New Horizons	Refereed	2015	
Useful ways of disposing Styrofoam	New Horizons	Refereed	2015	
Biodegradable Plastic Using Different Plasticizers	Imperial Journal of Interdisciplinary Research	Refereed	2016	http://www.imperialjournals.com/index.php/IJIR/article/view/1384
Animal Research-Boon or Curse	Proceedings of the UGC and INSA Sponsored Two Days National Seminar on Animal Diseases		2016	
Eco-enzyme-A Perfect House-hold Organic Cleanser	International Journal of Engineering Technology, Management and Applied Sciences	Refereed	2017	http://www.ijetmas.com/admin/resources/project/paper/f201711251511582415.pdf
Enantio- and chemoselective oxidation of omeprazole sulfide to enantiopure (S)-omeprazole with whole-cells of <i>Aspergillus carbonarius</i>	Biocatalysis and Agricultural Biotechnology	Refereed	2018	https://www.sciencedirect.com/science/article/pii/S1878818118305012
A Novel Method for the Preparation of Eco-enzymes	Journal of Catalyst & Catalysis	Refereed	2020	https://engineeringjournals.stmjournals.in/index.php/JoCC/article/view/3881

Biocatalytic Oxidation of Sulfides to Sulfones	Oriental Journal of Chemistry	Refereed	2021	https://www.semanticscholar.org/paper/Biocatalytic-Oxidation-of-Sulfides-to-Sulfones-Dhiman/2a5b02661cbe929c7bbcbab591abac6eebb7d721#paper-header
Miscellaneous				

Training Courses, Teaching-Learning-Evaluation Technology Programs, Faculty Development Programmes (not less than one week duration)

- 1) Attended 99th Orientation (GOC) course at UGC-Academic Staff College, Panjab University from 3rd September-30th September, 2013.
- 2) Attended Refresher course at UGC-Academic Staff College, Panjab University in “Environment Studies (Interdisciplinary) from 21st March- 10th April, 2014.
- 3) Attended a seven day RUSA sponsored Faculty Development Workshop at Post Graduate Govt. College for Girls, Sec 42, Chandigarh titled “To Generate Innovative Ideas and Knowledge” from 20th – 26th February, 2016.
- 4) Attended a seven day RUSA sponsored Faculty Development Program on “ICT-New Dimensions in Research and Higher Education” at MCM DAV College for Women, Sector 36, Chandigarh from 22nd Nov – 02nd December, 2016.
- 5) Attended Short Term Course/Faculty Development Program at UGC-Human Resource Development Centre, Panjab University on “Environmental Awareness” from 18th – 24th January, 2019.
- 6) Attended Short Term Course/Faculty Development Program at UGC-Human Resource Development Centre, Panjab University on “Leadership for Sustainable Environments” from 27 Mayth – 2nd June, 2019.
- 7) Attended Swayam ARPIT online refresher Course in Chemistry Online (3 months) and gave a Proctor Exam 30th March, 2019
- 8) Attended Refresher course at UGC-HRDC, Panjab University in “Teachers Education (Interdisciplinary) from 20th February- 5th March, 2021.

Papers/poster/oral/Convener/Awards/resource person for presentations in conference, Seminars,Workshops, Symposia

- 1) Indo-US conference on new bioactive molecules in pharmaceutical research-Contribution to natural products (CCNP), held at IICT Hyderabad from Nov 13- Nov 14, 2006.
- 2) Mini symposium: Advances in Organic Chemistry and Chemical Biology (AOCCB), held at IICT, Hyderabad from Jan 11-Jan12, 2006. Presented 2 posters and got the award for the best poster presentation.
- 3) **Organizing Secretary** for National Seminar on “Bridging Gaps between Science, Nature and Society”, Department of Chemistry, MCM DAV College for Women, Chandigarh on 15th February, 2012.
- 4) Presented an oral presentation, titled “A Novel Method for preparation of Eco-Enzyme” at the 6th National conference on Advances in Chemical and Environmental Science at Multani Mal Modi College, Patiala from 13th-14th November, 2013. Presented poster on “50th Annual convention of Chemist” organized by Panjab University and Indian academy of Sciences from 4th -7th December, 2013. **Dr. Shefali Dhiman** was awarded the best poster award in the “Organic and Biochemistry Section”.
- 5) **Coordinator** for a national seminar on Expanding Horizons-Interdisciplinary Approach to Chemistry on 13th February 2014.
- 6) Attended Science Academies’ Lecture Workshop on ‘Spectroscopy- Application in Chemistry’ organized by Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad in collaboration with Indian Academy of Science at National level on 22nd and 23rd August, 2014.
- 7) Presented a poster titled “Stereoselective Oxidation of Penems to their (R)-Sulfoxides” at the 7th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences on 30-31st January, 2015 at
M.M. Modi College, Patiala.
- 8) Presented a poster titled “Biocatalytic Synthesis of Proton Pump Inhibitor” at the Chandigarh Science Congress on 25th-27th February, 2015 at Panjab University, Chandigarh.
- 9) Presented a poster titled “Biocatalytic Synthesis of Proton Pump Inhibitor” at the National seminar on “Recent Advances in Chemical and Environmental Studies (RACES 2015) on 26th-27th February, 2015 at Arya
P.G. College, Panipat.
- 10) Presented a poster titled “Biocatalytic Synthesis of Proton Pump Inhibitor” at the International seminar on Asian Network on Natural and Unnatural Materials (ANNUM-03) on 27th-1st March, 2015 at Panjab University, Chandigarh.
- 11) **Invited as a resource person** at GHG Khalsa College, Gurusar Sudhar at a National Seminar on “Green Chemistry” on 25th-26th March, 2015.

- 12) **Convener** for a UGC sponsored National seminar on “Spectroscopy-An Immense Tool in Chemistry” on 21- 22 August, 2015 at MCM DAV College.
- 13) Presented an Oral Presentation titled “Linking Green Chemistry to Spectroscopy” at UGC Sponsored National Seminar at MCM DAV College for Women on 21st August, 2015.
- 14) Presented a poster titled “Nutrient Analysis by Spectroscopy (Fe and Vitamins)” at UGC Sponsored National Seminar at MCM DAV College for Women on 21st August, 2015.
- 15) Presented a research paper titled ‘NMR Spectroscopy and Neuropsychological Deficits in Alziemer’s Disease” at 2nd International and 4th National conference of Indian Psychological Congress, 8th-9th October 2015.
- 16) Presented a poster titled “Linking Green Chemistry to Spectroscopy” at CREST Sponsored National Seminar Fascination of Light and Photonics for Life at Post Graduate Govt. College for Girls, Sec 11, Chandigarh on 22nd January, 2016.
- 17) Presented a poster titled “Magnetic Resonance Spectroscopy and Neuropsychological Deficits in Alzheimer’s Disease” at Professor R.C. Paul National Symposium on Progressive Trends in Chemical Sciences, Panjab University on 23rd January, 2016.
- 18) Presented a poster titled “Spectroscopy and Neuropsychological Impairment in Obsessive Compulsive Disorder” at one day CREST Sponsored National workshop on Emerging Trends in Optical Techniques and Photonics at Post Graduate Govt. College, Sec 11, Chandigarh on 4th February, 2016.
- 19) Presented a poster titled “Biocatalytic Approach towards Spectroscopy” at one day CREST Sponsored National workshop on Emerging Trends in Optical Techniques and Photonics at Post Graduate Govt.College, Sec 11, Chandigarh on 4th February, 2016.
- 20) **Member of the Organizing Committee** in MCM Science Fest “Celebration Science in Life” on 24th February, 2016 sponsored by DBT, Ministry of Science & Technology.
- 21) Attended the Dean College Development Council sponsored National Workshop for Faculty Development on 19th March, 2016, at MCM DAV College for Women, Sector 36, Chandigarh.
- 22) **Member of the Organizing Committee** in Two days National Seminar on “Animal Diseases: Impact on Human Health and Control Issues” on 30th and 31st August, 2016 organized by Department of Zoology and Department of Food Science, MCM DAV College for Women sponsored by UGC and Indian National Science Academy.
- 23) Presented a research paper titled ‘Neuroimaging and Neuropsychological Impairments in Chronic Alcohol Abuse” at 3rd International and 5th National conference of Psychological Congress, 28th-30th September, 2016.
- 24) Participated in Workshop on “The Role of Anger and its Impact in Life- Scientific Perspective” at 3rd International and 5th National conference of Psychological Congress, 28th-30th September, 2016.
- 25) Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13th

October, 2017 organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.

- 26) **Coordinator** for Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24th -25th October, 2017.
- 27) Poster presentation entitled "Happiness and Mental Health- A Symbiotic Relation" in international conference "Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness" on 29th-30th January 2018.
- 28) Poster presentation entitled "Euphoria and Neuropsychological Functioning in Bipolar Affective Disorder" in international conference "Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness" on 29th-30th January 2018.
- 29) Attended Faculty development program (FDP) sponsored by IQAC, MCM DAV college for women on calculating API scores on May 28, 2018.
- 30) Attended Department of Science and Technology and Renewable Energy, Chandigarh Administration sponsored one day science exhibition "Science: Past and Future" organised by PG Department of Chemistry MCM DAV College for Women on 17th March 2018.
- 31) Attended and Convened lecture-cum-workshop on "Nanoscience, Nanotechnology and its Environmental Applications" on 9th August 2018.
- 32) Attended Science Fest sponsored by DST, Chandigarh on the theme "Wonders of Science" on 4th October 2018.
- 33) Attended Workshop on Planning, Preparation and Execution of MOOC organized by IQAC, MCM DAV College for Women from 11-12 Oct ,2019
- 34) Co-ordinator for the RUSA sponsored Workshop on celebrating 150th year of the periodic table on 2nd Nov, 2019
- 35) Co-ordinator for a webinar, "The Third Alphabets of Life and Synthetic Vaccines" on 31/7/2020 by Prof. S. Eswaran, Visiting Professor, Regional Centre for Biotechnology, Faridabad.
- 36) Co-ordinator for a National Level Online Poster Making Competition on Chemical Squandering and Management on 23rd September 2020.
- 37) Co-ordinator for National Online Power Point Presentation Competition on Chemistry of Cleaning Agents on 30-31st March 2021.
- 38) Co-ordinator for Two days skill-based Lecture cum workshop on "Refreshing the basic Chemistry Lab skills post lockdown".by Dr. Angshuman Roy Choudhury, asst. professor IISER, Mohali and Dr. Rishu Asst. Professor, MCM DAV, on 9-10th September 2021.
- 39) Co-ordinator for Special lecture on "Nanoscience- A World beyond visual limits "by Dr. Nishima Wangoo Department of applied science, UIET, Panjab university, Chandigarh, on 22nd September 2021.
- 40) Co-ordinator for Webinar on "Nanotech and Future Implications" by Dr. Ashish Pal Scientist, INST, Mohali, on 22nd Feb 2022.
- 41) Co-ordinator for a poster making competition on the theme "Chemistry in other Disciplines "on 16th March 2022.
- 42) Co-ordinator for Inauguration of "Central Instrumentation Lab" setup out of DST- FIST grant with special lecture on "by Dr. Rohit Kumar Sharma Department of Chemistry Panjab University, Chandigarh, on 25th march 2022.
- 43) Co-ordinator for Organising Lecture cum Workshop on "Basic learning and Handling of Spectroscopic Techniques (UV-VIS, FTIR, NMR) , on 25th march 2022.

Teaching

Classes being taught in the current year:

Class	Subject	Periods	
		Assigned/Week (Lecture/ Practical/Compo/ Tutorials)	Extra Classes Taken
B.Sc 1 st and 2 nd semester Chemistry	Organic	6 Theory, 18 Practicals	2 hrs/week
Msc 3 rd semester Chemistry	Organic Spectroscopy	6 Theory, 18 Practicals	2 hrs/week
Bsc 3 (5 th and 6 th semester)	Organic	6 Theory, 18 Practicals	2 hrs/week

Result Statement of Classes taught in last session (20-21):

Class	Section	Subject	No. of Students Appeared	No. of Students Passed	Pass Percentage	PU Pass Percentage
M.Sc. I		Organic	38	38	100	87.50
M.Sc. II		Spectroscopy	44	44	100	93.38
Bsc III	B	Organic	51	51	100	91

Research projects (current year 2020-21):

Title of the Project	Name of the Funding Agency	Amount Sanctioned/ Received	Duration
COMPARATIVE STUDY OF BIOPLASTIC FILMS PREPARED FROM CORN, POTATO AND ARROWROOT STARCHES USING VARIOUS PLASTICIZERS	DAV Managing Committee	25,000	1 year

2. Participation in Corporate Life:

a. Details of the membership in College Committees:

Committees	Convenor / Coordinator / Member	Contribution
Swachhata committee	Coordinator	Worked actively in all Swachhata activities of the college
Mehr Jyoti	Editor (Science)	Took an active participation for preparation of science section of the magazine of the college
Construction, Purchase and Repair Committee	Member	Worked as a team member of all construction, purchase and repair activities in college
UGC committee	Member	Worked as a team member
New Horizons Journal Committee	Assistant Editor	Took an active participation for preparation of draft to include the New Horizons in UGC Care list. Performed other duties like reviewing paper or communicating with the author as and when given.
Star College Committee	Member	Actively participated in implementation of the scheme in the department. Introduced

		new practical's and projects in U.G. classes.
MOOC Committee	Member	Member and part of MOOC. Submitted a proposal to CEC for implementation
Student Redressal Cell	Member	Addressed the problems of the students being an active member
Stock Checking	Member	Actively involved in stock checking of the Chemistry department
Research	Member	Worked as a team member. Took important decisions regarding seed money allocation and purchasing of plagiarism software.
Skill Development Committee	Member	Motivated students to participate all skill-based activities
Prize distribution committee	Member	Was responsible in making list and distribution of prizes of B.Sc. II and III
Convocation Committee	Member	Worked as team member in degree distribution duty
M.Sc. admission committee (Chemistry)	Convener	Ensured smooth and fair admission of M.Sc. (Chemistry)