




Faculty Details proforma for DU Web-site

(PLEASE FILL THIS IN AND Email it to websiteDU@du.ac.in and cc: director@ducc.du.ac.in)

Title	Dr.	First Name	Savindra	Last Name	Kumar	Photograph
Designation		Assistant Professor				
Address		Department of Botany Zakir Husain Delhi College University of Delhi JLN Marg Delhi-110002				
Phone No Office						
Residence		091-9717565751				
Mobile		091-9350364635				
Email		sk.chatwal@gmail.com				
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
B.Sc. (Biology)		MMH college Ghaziabad, C.C.S. University Meerut			2003	
M.Sc. (Botany)		MMH college Ghaziabad, C.C.S. University Meerut			2005	
M.Phil. (Botany)		Department of Botany, University of Delhi			2007	
Ph.D. (Botany)		Department of Botany, University of Delhi			2013	
Career Profile						
Research Associate Department of Botany, University of Delhi June 19, 2013 –July 31, 2013 PDF (Botany) Department of Botany, University of Delhi July 1, 2014- July 17, 2015						
College		University		Duration		Designation
Zakir Husain Delhi College		University of Delhi		July 20, 2015 to till Date		Assistant Professor Permanent
Hindu College		University of Delhi		January 2013 to April 2014		Guest Lecturer
Hansraj College		University of Delhi		January 2013 to April 2013 and January 2014 to April 2014		Guest Lecturer
Motilal College		University of Delhi		January 2014 to April 2014 and January 2015 to March 2015		Guest Lecturer
Academic Responsibilities						
<ul style="list-style-type: none"> ➤ Member of Academic Supervisory Committee Since 12 June 2024 till date ➤ Practical Examination Superintendent 2023-2024 ➤ Convener of Time Table committee from 21 May 2022 to 12 June 2024 ➤ Member of canteen committee from 21 May 2022 to 12 June 2024 ➤ Member of Entrepreneurship Development Cell 2021-2022 ➤ President Botanical Society “Nargis” ZHDC 2020-2021 ➤ Member of Proctorial board Since May, 2019 to 21 May 2022 ➤ Practical Examination Superintendent 2018-2019 ➤ Teacher-in-charge during May 2017 to April 2018 ➤ Member of Staff Requirement Committee from November 2016 to May 17, 2018 ➤ Member of Library committee during May 2017 to April 2018 ➤ Member of Admission committee during May 2017 to April 2018 						

➤ **Member of Time Table committee** Since May 17, 2018 to 21 May 2022

➤ **Member of NAAC innovation and best practices 2016**

Furthermore, I have actively contributed to the development of syllabi and guidelines for over 15 academic papers. Additionally, I have served as both a head examiner and an additional examiner for more than 20 papers during end-of-semester university examinations since 2015.

Field Experience

- During my research period, I conducted extensive travel along various parts of the Indian coast, including Chilika Lake in Odisha and Pulicat Lake of Andhra Pradesh. Additionally, I explored coastal regions in the United States during my international trips.”
- Since 2015, I have actively participated as a faculty member in organizing various field trips, institutional visits, and industrial tours. These initiatives aim to enhance awareness and knowledge among undergraduate students, motivating them to explore new areas of research and potential career paths.

Major Techniques

- Data Analysis
- Spectrophotometry, Microtomy and Microscopy.
- Isolation Identification and culture of Micro/Macro algae.
- Agar, Alginate and Carrageenan extraction from seaweeds.
- Saccharification and Fermentation.
- Preparation of seaweed’s liquid fertilizers.

Computer proficiency

MS office, Photoshop, Internet proficiency, Advance excel, R and SPSS software

Orientation/Refresher/Faculty Development Programme

- Participated in two weeks Faculty Development Programme on “Foundation Course in Vedic Mathematics” organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during March 31, 2024 to April 13, 2024 and obtained grade A+.
- Participated in four weeks Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during February 21, 2024 to March 19, 2024 and obtained grade A+.
- Participated in one week Faculty Development Programme on “Intellectual Property Rights” organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during 23-29 January 2023 and obtained grade A.
- Participated in one week Faculty Development Programme on “Data Analysis Using R” organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during 12 -18 December, 2022 and obtained grade A.
- Participated in one week Faculty Development Programme on “Statistics with ‘R’, Financial Database and Analysis Software” jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) of Ministry of Education during 4 November to 11 November 2022, and obtained grade A.
- Participated in two weeks refresher course on “Life Sciences” organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit

Madan Mohan Malaviya National Mission on Teachers and Training during 28 October – 11 November, 2022 and obtained grade A+.

- Participated in one week Faculty Development Programme on “NEP-2020, New Trends in Higher Education” organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during August 29 to September 04, 2022 and obtained grade A+.
- Participated in Two weeks National Interdisciplinary Refresher Course on " Research Methodology and Data Analysis (Sharpening Skills through MSEXcel, SPSS, MATLAB and R)" organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of EDUCATION, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during March 24 to April 7, 2021 and obtained grade A+.
- Participated in one week Faculty Development Programme on "E-Content Development" organized by MSP Mandal’s Shri Shivaji College, Parbhani, NAAC A+ (3.52) UGC CPE, Paramarsh & STRIDE during August 31 to September 5, 2020.
- Participated in two weeks Faculty Development Programme on " "QUANTITATIVE METHODS FOR DATA ANALYSIS" organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during August 12 to August 25, 2020 and obtained grade A+.
- Participated in two weeks Faculty Development Programme on "ADVANCED CONCEPTS FOR DEVELOPING MOOCS" organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during July 2 to July 17, 2020.
- Participated in two weeks Faculty Development Programme on " MANAGING ONLINE CLASSES and CO-CREATING MOOCS:2.0" organized by Teaching learning center Ramanujan College, University of Delhi, sponsored by Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Training during May 18 to June 3, 2020.
- Participated in one week Faculty Development Programme on "Experiential Learning Methodology- Gandhiji’s Nai Talim" organized by Mahatma Gandhi National Council of Rural Education (Department of Higher Education, Ministry of Human Resource Development, Govt. of India, Hyderabad) Sponsored by Pandit Madan Mohan Malaviya National Mission on Teachers and Training during May 11-15, 2020.
- Participated in one week Mahatma Hansraj Faculty Development Programme on " Recent Trends in Research Methodology, E- Content, Mathematical and Statistical Methods in Open Education World" organized by Kalindi College (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Center, Hansraj College (University of Delhi), A center of MHRD, Govt. of India, Under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) during December 17-23, 2019.
- Participated in one week Mahatma Hansraj Faculty Development Programme on "Revisiting Gandhi today: Questions of caste, class, gender, religion and environment" organized by Zakir Husain Delhi College (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Center, Hansraj College (University of Delhi), A center of MHRD, Govt. of India, Under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) during September 17-23, 2019.
- Participated in one week Faculty Development Programme on "Effective Teaching and Learning Practices" organized by Shyama Prasad Mukherji College for Women (University of Delhi) during September 22-26, 2018.
- Participated in 4 weeks Orientation Programme (OR-93), Organized by Centre for Professional Development in Higher Education, Human Resource Development Centre, (CPDHE, UGC-HRDC), University of Delhi during July 03-30, 2018 and obtained grade A.
- TEQIP-III Sponsored one week Faculty Development Programme (RDTM) organized by Department of Biotechnology, Delhi Technical University, during March 12-16, 2018.

Administrative Assignments

- **(Coordinator)** A Hands-on-Training on Aeroponics, Hydroponics, Landscaping, and Vertical Gardening, organized by Department of Botany, Zakir Husain Delhi College, University of Delhi During November 8, 2024 to November 9, 2024
- **(Coordinator)** An International Conference cum Workshop on Making Sense of Omics: Proteomics, Transcriptomics, and Molecular Drug Design (Hybrid Mode), organized by Department of Botany, Zakir Husain Delhi College, University of Delhi During April 23, 2024 to April 24, 2024.
- National Workshop and Training Programme on Seaweed Cultivation and Artificial Reefs Deployment for Ecological Restoration (Satapada, Chilika Lake, Odisha, India) Organized by Marine Biotechnology Laboratory Department of Botany, University of Delhi & and Sponsored by Department of Biotechnology, Government of India, New Delhi, India, Supported by Indian Phycological Society, New Delhi, India held During February 16, 2024 to February 17, 2024.
- **(Quiz Moderator)** Dr. Virendra Kumar Rolling Shield Environmental Quiz organized by Department of Botany, Zakir Husain Delhi College, University of Delhi on February 16, 2024.
- **(Organizing Secretary)** TRAINING PROGRAM ON FOOD SAFETY, organized by Department of Botany, Zakir Husain Delhi College, University of Delhi ON October 20, 2023.
- **(Organizing Secretary)** International Conference cum Workshop on Proteomics, Transcriptomics, and Molecular Drug Design: An Integrated Omics Approach, organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during 25th-27th May 2022
 - **(Convener)** National Workshop on Statistical Analysis of Biological Data organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during January 17, 2022 to February 21, 2022.
- **(Convener)** Workshop on Analytical Instrumentation Techniques organized by Department of Botany, Zakir Husain Delhi College, University of Delhi in association with M/s sv Instrument Analytica Pvt. Ltd, Gurugram during October 6-7, 2018.
- **(Organising Secretary)** National Conference on Challenges and Strategies to Improve Crop Productivity in Changing Environment: An Integrated Approach organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, on January 12, 2018
- **(Coordinator)** National Workshop on Biostatistics organized by Department of Botany in association with Department of Mathematics, Zakir Husain Delhi College, University of Delhi, during March 9-10, 2017.
- **(Convener)** National Conference on Pharmacognosy: Scope of Phytochemically Unexplored Medicinal Plants organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, on January 12, 2017.
- **(Coordinator)** Workshop on Basic Techniques in Plant Tissue Culture organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during 4th July 2016-13th July 2016.

Organizing Committee member

- DIGITAL UPSKILLING WORKSHOP for lab staff organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during 15th-17th February 2022
- REFRESHER COURSE ON LAB TECHNIQUES for lab staff organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during 7th-11th February 2022
- National Seminar on Innovation and Opportunities in Marine Bioresources & Biotechnology Organized by Marine Biotechnology Laboratory Department of Botany, University of Delhi & Cluster Innovation Centre (CIC), University of Delhi held on 21st August, 2021 in virtual mode.
- National Workshop On Bioinformatics Resources, Tools, and its Applications (for undergraduate students), Organized by Department of Botany, Zakir Husain Delhi College (University of Delhi), during 19-27 July, 2021.
- Webinar on “Intellectual Property Right: An Overview” organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, Delhi, on October 1, 2020.
- National Conference on Water Sustainability: Conservation, Policy, Ethics and Science Organized by Department of Environmental Studies & Srishti: Nature and Environment Society Zakir Husain Delhi College (University of Delhi), During January 21-22, 2020.
- Workshop on Plant Tissue Culture organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during March 8-9, 2019.
- Workshop on Art of Scientific Writing & Communication Skills organized by Department of Botany, Zakir

Husain Delhi College, University of Delhi, during July 16-23, 2018.

- National Conference on Genetics-Environment Interface: Science and Spirituality; organized in memory of Dr. Virendra Kumar; organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, on January 25, 2018
- Workshop on Biofertilizers organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during 14th July 2016-16th July 2016.
- National Symposium on Biotechnology in Crop Improvement: Prospects and Constrains” Organized by Zakir Husain Delhi College, University of Delhi, Delhi, on April 1, 2016
- National Seminar of Prof. B. M. Johri Rolling Shield Competition “Does climate change influence food and energy security?” Organized by Delhi University Botanical Society (DUBS). Held at Department of Botany, University of Delhi on September 22-23, 2014
- International Algal Summit “Algae for sustainable development. Held at TERI University New Delhi, 21-22 February 2012.
- 7th Asia-Pacific Conference on Algal Biotechnology Jointly Organized by Department Of Botany, University of Delhi, Delhi, India and Indian Phycological Society, New Delhi, India, December 1- 4, 2009, New Delhi – India.
- Volunteer member of Delhi University Botanical Society (DUBS) for the year 2014-15

Apart from these I was actively involved in various Departmental and College activity such as Quizzes, Annual Days, ADAAB, Convocation, DUSU Election, Student Refreshers, orientations etc.

Workshops/Training attended

- IP Awareness/Training program under National Intellectual Property Awareness Mission organized by Office of the Controller, General of Patents, Design and trade Marks, Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India During 12 February 2022 (Coordinated by Zakir Husain Delhi College).
- IP Awareness/Training program under National Intellectual Property Awareness Mission organized by Office of the Controller, General of Patents, Design and trade Marks, Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India During 4 February 2022 (Coordinated by Maitreyi College).
- Online Workshop: SLC-01 on "Data Analysis and Visualization using R" organized by Student Learning Centre, IQAC Hansraj College, University of Delhi from 05th Oct 2021 – 08th Oct 2021.
- National Virtual Hands-On Workshop on “Tools Used in Biostatistics Research and Teaching” organized by Department of Botany, Ramjas College, University of Delhi (under the aegis of IQAC) during 13th to 14th August, 2021.
- Workshop on Plant Tissue Culture organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during March 8-9, 2019.
- Workshop on Art of Scientific Writing & Communication Skills organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during July 16-23, 2018.
- National Workshop on Biostatistics organized by Department of Botany in association with Department of Mathematics, Zakir Husain Delhi College, University of Delhi, during March 9-10, 2017.
- Workshop on Biofertilizers organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during 14th July 2016-16th July 2016.
- Workshop on Basic Techniques in Plant Tissue Culture organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, during 4th July 2016-13th July 2016.
- Workshop on Research Metrics organized by Delhi University Library System, University of Delhi, on February 26, 2015.
- One day workshop “Ankuran” on Development of Herbal Garden organized by e-Saviours Eco Club, Shivaji College, University of Delhi, Delhi in collaboration with National Medicinal Plant Board, Ministry of Ayush, Government of India and Centre for Environment Education, Department of Environment, Government of NCT of Delhi. On 29th January, 2015.
- Author workshop “Understanding the books and journal article publishing process” organized by Delhi University Library System, University of Delhi, in collaboration with Elsevier, DLF cyber city, Gurgaon, Haryana on 22nd September 2014.
- International Publishing Connect workshop conducted by Elsevier in association with University of Delhi. Held at University of Delhi, New Delhi on 11th September 2013.

- Workshop on Biotechnology: Trends and Techniques. SPONSORED BY DBT-Star College Project, Hindu College, University of Delhi. Held at Hindu College University of Delhi on 28-31 May 2013.
- National Workshop on Marine Algae Cultivation and Utilization “Employment Potential and Business opportunities in Coastal states and Union Territories of India” Held at Bhubaneswar, Odisha, India from 27-28, February 2012. SPONSORED BY: Science and Society Division, Department of Science & Technology, Govt. of India, New Delhi.
- Training Programme on Large Scale Seaweeds Cultivation and Processing for Livelihood Generation in Coastal States and Union Territories of India. Held at Mandapam, Tamilnadu, India from 15-17 July 2011. SPONSORED BY: Science for Equity, Empowerment and Development Division (SEED) Department of Science & Technology, Govt. of India, New Delhi.
- Second Training Programme on Seaweed Cultivation and Utilization. First National Workshop and Training Programme on *Porphyra* Cultivation and Processing in India. Held at Konkan Coast, Maharashtra, India from August 8-10, 2009. SPONSORED BY: Science for Equity, Empowerment and Development Division (SEED) Department of Science & Technology, Govt. of India, New Delhi.
- First Training Programme on Large Scale Seaweeds Cultivation and Processing for Livelihood Generation in Coastal States and Union Territories of India. Held at Chilika Lake, India. 5-7 January 2009. SPONSORED BY: Science and Society Division, Department of Science & Technology, Govt. of India, New Delhi.

Overseas International Seminars/Conferences/Workshop

- Participated in The “9th International Conference on Algal Biomass, Biofuels and Bioproducts” on 17th-19th June 2019. Boulder, CO, USA. Organized by Elsevier. Received **International travel grant from UGC** to participate in this conference.
- Participated in The “6th International Conference on Algal Biomass, Biofuels and Bioproducts” on 26th-29th June 2016. San Diego, USA. Organized by Elsevier. Received **International travel grant from UGC** to participate in this conference.
- Participated in The “5th International Conference on Algal Biomass, Biofuels and Bioproducts” on 7th-10th June 2015. San Diego, USA. Organized by Elsevier. Received **International travel grant from DST** to participate in this conference

Invited lecture/Resource Person

- National Workshop on Statistical Analysis of Biological Data organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during January 17, 2022 to February 21, 2022.
- **Chief Guest and Keynote Speaker** for The Environmental Society (Geo-Crusaders), Department of Environmental Science, PGDAV College, University of Delhi organized in collaboration with Kota Experts Environment Impact Assessment Division (KEEIAD) on the occasion of **National Energy Conservation Day December 14, 2021**

Ethical Jobs

- **Certificate of outstanding contribution** in reviewing articles were awarded by Algal Research (an Elsevier’s Journal) in recognition of the contribution made to the quality of the Journal for December 2016.
- Certificate of reviewing articles were awarded by Algal Research (an Elsevier’s Journal) in recognition of the review made to for the Journal for November 2016.
- Certificate of reviewing articles were awarded by Bioresource Technology (an Elsevier’s Journal) in recognition of the review made to for the Journal for October 2016.

National / International Seminars/Conferences

- Participated in One day International Workshop on “Intellectual Property Rights: Inventions, Patents and Copyrights”, Organised by Department of Botany , Maitreyi College, University of Delhi during October 27, 2023.
- Participated in “Interdisciplinary National conference on Intellectual Property Rights: Challenges and Prospects” Organised by Department of Botany , Maitreyi College, University of Delhi during October 22 – 23, 2019,
- Participated in “National Symposium on Biotechnology in Crop Improvement: Prospects and Constrains” Organised by Zakir Husain Delhi College, University of Delhi, Delhi, on April 1, 2016.
- Participated in “Green Educators’ Network” on 28-29 January 2016, Organised by Centre for Science and Environment
- Participated in “1st Himalayan Conclave-2015” on 9-10 September 2015, Organised by Institute of

Bioresources and Sustainable Development in association with Department Of Botany, University of Delhi, Delhi, India, Himalayan Environmental Studies and Conservation Organisation, India, Institute of Himalayan Bioresource Technology, India,

- Attended International Conference on “Integrated Medicinal Plants with Forestry Sector” on November 8-9, 2014 organized by National Medicinal Plants Board, Department of, AYUSH, Ministry of Health and Family Welfare, Govt. of India.
- Attended Lignocellulose Biotechnology Consortium. 2nd one day International Symposium on Lignocellulose Biotechnology. Held at Department of Microbiology, University of Delhi, South Campus, New Delhi India, 12th December 2012.
- Participated in Indo-German workshop on advanced material for future energy requirements held at Delhi University, Delhi, India 29th November-1st December 2012.
- Attended 4th annual herbal international submit cum exhibition on medicinal and aromatic products, spices and finished products (hi-MAPS) organized by The Associated Chambers of Commerce and Industry of India under the aegis of National Medicinal Plants Board, Ministry of Health and Family Welfare. Held at NSIC Exhibition Complex, Okhla Industrial Estate, New Delhi, during 14-15 April 2012.
- Participated in International Algal Summit “Algae for Sustainable Development” Jointly organized by Indian Phycological Society, New Delhi, India and The Energy and Resources Institute (TERI), New Delhi, India. 21-22 February 2012, New Delhi, India.
- Participated in 24th Annual International Conference of NESAP –New Delhi on Bioremediation and Environmental Management and Polar Science & Technology. Held at Presidency College Kempapura, Hebbal, Bangalore -560024, 28th-29th December 2011.
- Participated in 7th Asia-Pacific Conference on Algal Biotechnology Jointly Organized by Department of Botany, University of Delhi, Delhi, India and Indian Phycological Society, New Delhi, India, December 1-4, 2009, New Delhi – India.
- Attended “Higher Education: Vision – 2015” and 13th Convention of U.P. Govt. Colleges Academic Society. Held at Government Post Graduate College NOIDA, Sunday 17th February 2008.

Webinars/Online symposium/Online quizzes

- Participated in “LET’S LEARN HYDROPONICS - 1” organized by www.eezeegrow.com on 5 October 2021.
- Participated in Two Days National Seminar (Online Mode) on Advancement of Plant Sciences for Food Diversity and Nutritional security, organized by DST (FIST) and UGC-SAP assisted DRS Department of Botany University of North Bengal in collaboration with UGC-Human Resource Development Center University of North Bengal During 30 September 2021-1 October 2021.
- Participated in National level Online Botany Quiz-Series II organized on the occasion of 75th Independence Day by the Post Graduate Department of Botany, Mahatma Gandhi Govt. Arts College, Mahe, U.T. of Puducherry on 15.08.2021.
- Participated in Webinar on “Intellectual Property Right: An Overview” organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, Delhi, on October 1, 2020.
- Participated in E-Quiz to create General Awareness on Health and Covid-19 with a score of 100 / 100 organized by KALINDI COLLEGE, University of Delhi.
- Participated the online quiz on NATIONAL LEVEL COVID-19 AWARENESS QUIZ on 14-7-2020 organized by DEPARTMENT of MICROBIOLOGY, Ranveer Rananjay PG College Amethi (UP).
- Participated in two day International Webinar on “Environment and Human Interaction Effects in Post Covid-19 Era” organized by Department of Botany and Department of Zoology, MMH College, Ghaziabad, on June 8th – 9th June 2020.
- Participated in the online quiz on concept of physics on 9-6-2020 with score 100% organized by department of physics Arts, Science and Commerce College Ramanandnagar (Burli).
- Attended a webinar on “Biodiversity and Man” organized by the Department of Botany, Dyal Singh College, University of Delhi, in collaboration with Society for Ecological Research and Natural Resources Management (SERNRM) on June 5, 2020.
- Participated in the Quiz- 2020 organized by Department of Botany on the occasion of the “World Environment Day” on 5th June 2020 and scored 100% marks..
- Attended an Online International Symposium on topic “Role of Plants as Medicine and Immunity Booster

<p>with Special Reference to COVID-19 Pandemic” from 26th May to 27th May 2020 organized by Department of Botany, Sri Guru Tegh Bahadur Khalsa College Jabalpur.</p> <ul style="list-style-type: none"> • Attended a webinar on “Botanical Secrets for Wellness: Clued From Nature’s Signature” organized by the Phytomics: The Botanical society of Bhaskaracharya College of Applied Sciences (University of Delhi), held on 16th May 2020. • Attended a webinar on “Evolution of science seen from historical perspective” Conducted by the Department of Botany, Deshbandhu College under the aegis of IQAC on 12th & 13th May 2020. • Participated in Online Covid – 19 awareness Quiz Organized by Govt. Degree College Kursanda, Sadabad, Hathras, [U.P.] during May 2020. • Participated in the Quiz- 2020 organized by Department of Botany Government Model Degree College, Arniya, Bulandshahr, U.P. on the occasion of the “International Biodiversity Day” on 22 May 2020 and scored 100% marks. • Participated and obtained 75% in the online “BOTANY QUIZ III ”organised by Department Of Botany, SS College Shahjahanpur, UP, India to Contribute to Nation.
Areas of Interest / Specialization: Applied Phycology and Biostatistics
MY MAJOR INTEREST IS ALGAE/SEAWEEEDS’ APPLICATIONS FOR SOCIETAL BENEFIT BY USING SCIENCE & TECHNOLOGY AND DATA ANALYSIS.
Subjects Taught
<ol style="list-style-type: none"> 1. Phycology 2. Microbiology 3. Biostatistics 4. Biotechnology
Major Techniques
<ul style="list-style-type: none"> ○ Data Analysis ○ Spectrophotometry, Microtomy and Microscopy. ○ Isolation Identification and culture of Micro/Macro algae. ○ Agar, Alginate and Carrageenan extraction from seaweeds. ○ Saccharification and Fermentation. ○ Preparation of seaweed’s liquid fertilizers.
Research Guidance
Publications Profile
Research Papers <ul style="list-style-type: none"> ○ Shah, S. Kumari, S. Datta, M., Beg, M.F. Kumar S. 2023. Transcriptomics and Proteomics studies for Biofuel Production in microalgae: An overview. <i>Phytomorphology</i> 73(1&2) 2023, 9-15. ○ Kumar, S., Sahoo, D. 2017. A comprehensive analysis of alginate content and biochemical composition of leftover pulp from brown seaweed <i>Sargassum wightii</i>. Accepted Manuscript. <i>Algal Research</i>. 23:233-239. ALGAL_2016_107. ISSN 2211-9264. ○ Shukla, R., Kumar, M., Chakraborty, S., Gupta, R., Kumar, S., Sahoo, D. and Kuhad, R.C. 2016. Process development for the production of bioethanol from waste algal biomass of <i>Gracilaria verrucosa</i>. <i>Bioresource Technology</i>. http://dx.doi.org/10.1016/j.biortech.2016.08. ISSN 0960-8524. ○ Kumar, S., Sahoo, D. and Levine, I. 2015. Assessment of nutritional value in a brown seaweed <i>Sargassum wightii</i> and their seasonal variations. <i>Algal Research</i> 9:117-125. ISSN 2211-9264. ○ Kumar, S., Baweja, P and Sahoo D. 2014. Light and scanning electron micrographic studies in cystocarpic plant of <i>Rhodymenia dissecta</i>. <i>Phytomorphology</i> 64(1&2): 53-62. ISSN 0031-9449. ○ Kumar, S., Gupta, R., Kumar, G., Sahoo, D. and Kuhad, R.C. 2013. Bioethanol production from <i>Gracilaria verrucosa</i>, a red alga, in a biorefinery approach. <i>Bioresource Technology</i>. 135 pp 150-156. ISSN 0960-8524.

Book Chapters

- Madan, A., Kumari, S., **Kumar, S.** (2023) Floral Nectar Microbiome: An Untapped Aspect and its Overall Impact on Plants in Changing Global Scenarios. In: Rakhi Chakraborty, Piyush Mathur, Swarnendu Roy (eds.) Food Production, Diversity, and Safety under Climate Change. SPRINGER-ASTI
- **Kumari, S.**, Satapathy, S., Datta, M. and Kumar, S. 2022. Adaptation of Microalgae to Temperature and Light Stress. In: Plant Stress: Challenges and Management in the New Decade. S. Roy et al. (eds.),. Plant Stress: Challenges and Management in the New Decade, Advances in Science, Technology & Innovation, https://doi.org/10.1007/978-3-030-95365-2_8. Book ID: 512666_1_En Book ISBN: 978-3-030-95364-5 Chapter No.: 8 Date: 7-2-2022 Time: 7:18 am Page: 1/12
- Yadav, K., Kumar, D., **Kumar, S.**, and Sahoo, D. 2020. Effects of seaweed liquid extract on seedlings growth and pigment content of *Vigna radiata*. In: India 2020 : Environmental Challenges, Policies and Green Technology. Imperial Publications. pp 113-118. ISBN: 978-81-932621-1-5.
- Baweja, P., **Kumar, S.** and Kumar, G. 2020. Fertilizers And Pesticides: Their Impact On Soil Health And Environment. In: Soil Biology, Vol. 59, Bhoopander Giri and Ajit Varma (Eds): Soil Health, 978-3-030-44363-4, 487648_1_. pp 265-285
- Baweja, P., **Kumar, S.** and Kumar, G. 2019. Organic Fertilizer From Algae: A Novel Approach Towards Sustainable Agriculture. In: Biofertilizers for Sustainable Agriculture and Environment Soil Biology 55, https://doi.org/10.1007/978-3-030-18933-4_16. Eds. Bhoopander Giri, Ram Prasad, QS Wu and Ajit Varma. © Springer Nature Switzerland AG 2019. pp 353-370.
- Redhu, S., Garg, S., Ashraf, A., **Kumar, S.**, Pipralia, N. and Sahoo, D. 2018. Ocean acidification: A dynamic changer to future energy source. In: Introduction to challenges and strategies to improve crop productivity in changing environment. Enriched Publications. pp 93-110. ISBN: 978-81-934634-9-9
- Kumari, S. and **Kumar, S.** 2017. Field Trial and Protocols. In: Biofertilizers and Biocontrol Agents for Organic Farming. Ed. Reeta Khosla. Kojo Press. ISBN: 978-81-9275-679-0.
- Bhargava, M., Wattal, R.K., Jehan, T., **Kumar, S.** and Kumari, S. 2017. Phytochemically Unexplored Medicinal Plants: An Introduction. In: Scope of Phytochemically Unexplored Medicinal Plants. Enriched Publications. pp 1-4. ISBN: 978-1-63535-013-5
- Kumari, S. and **Kumar, S.** 2017. A Descriptive Study of Certain Medicinal Weeds of Khehra. In: Scope of Phytochemically Unexplored Medicinal Plants. Enriched Publications. pp 15-23. ISBN: 978-1-63535-013-5
- Baweja, P., **Kumar, S.**, Sahoo, D. and Levine, I. 2016. Biology of Seaweeds. In: Seaweed in Health and Disease Prevention. Eds: Joël Fleurence and Ira Levine. ISBN: 978-0-12-802772-1. Pp 41-106.
- **Kumar, S.**, Sahoo, D. and Levine, I. 2015. Algae as a source of biofuel. In: Springer Dordrecht Heidelberg New York London In: Cellular origin, life in extreme habitats and astrobiology new volume: Algal World. pp 483-500 ISBN no. 978-94-017-7320-1 & ebook 978-94-017-7320-1. Pp483-501.
- **Kumar, S.**, Baweja, P. and Sahoo, D. 2015. Diatoms: Yellow or Golden Brown Algae. In: Springer Dordrecht Heidelberg New York London In: Cellular origin, life in extreme habitats and astrobiology new volume: Algal World. pp 483-500 ISBN no. 978-94-017-7320-1 & ebook 978-94-017-7320-1. pp 235-258.
- Sahoo, D. and **Kumar, S.** 2015. Xanthophyceae, Euglenophyceae and Dinophyceae. In: Springer Dordrecht Heidelberg New York London In: Cellular origin, life in extreme habitats and astrobiology new volume: Algal World. pp 483-500 ISBN no. 978-94-017-7320-1 & ebook 978-94-017-7320-1. pp259-307.
- Sahoo, D., **Kumar, S.**, Elangbam, G., Devi, S.S., 2012. Biofuel production from algae through integrated biorefinery. Springer Dordrecht Heidelberg New York London In: Cellular origin, life in extreme habitats and astrobiology new volume: The Science of Algal Fuel. pp. 215-230. ISSN 1566-0400; ISBN 978-94-007-5109-5 and ISBN 978-94-007-5110-1 (eBook).
- **Kumar, S.** and Sahoo D. 2012. Seaweeds as a source of bioethanol. *Algal Biotechnology and Environment*. I. K. International Publication New delhi. pp. 101-109. ISBN -10:9381141711. ISBN-13:978-9381141717.

Edited Book/Proceeding

- **Kumar, S.**, Hooda, L., Sonwani, S., Devender and Wattal R.K. 2020. India 2020: Environmental Challenges,

Policies and Green Technology. Imperial Publications. pp 113-118. ISBN: 978-81-932621-1-5.

- Ansari, M.W., **Kumar, S.**, Kaula, B.C. and Watal, R.K. 2018. Introduction to challenges and strategies to improve crop productivity in a changing environment. Enriched Publications. ISBN: 978-81-934634-9-9
- **Kumar, S.**, Bhargava, M., Watal, R.K., Jehan, T., 2017. Scope of Phytochemically Unexplored Medicinal Plants. Enriched Publications. ISBN: 978-1-63535-013-5.

Abstracts/Poster presentation/Oral Presentation

- Shah, S. and **Kumar, S.** 2022. Insights into integrative omics approaches to improve microalgal-based biofuel production, In International Conference cum Workshop on Proteomics, Transcriptomics, and Molecular Drug Design: An Integrated Omics Approach, organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during 25th-27th May 2022.
- Dutta, M., Beg, M.F. and **Kumar, S.** 2022. Phylo-proteomics of oleaginous algal species, In International Conference cum Workshop on Proteomics, Transcriptomics, and Molecular Drug Design: An Integrated Omics Approach, organized by Department of Botany, Zakir Husain Delhi College, University of Delhi during 25th-27th May 2022.
- **Kumar, S.**, Baweja, P., Kumar, G. 2020. Microalgal Degradation of Organic Pollutants in National Conference on Water Sustainability: Conservation, Policy, Ethics and Science Organized by Department of Environmental Studies & Srishti: Nature and Environment Society Zakir Husain Delhi College (University of Delhi), During January 21-22, 2020.
- Deepshikha, Kumar, D., **Kumar, S.**, Sahoo, D. 2020. Effect of Seaweed Liquid Extract From Gracilaria Species on Seedling Growth of Trigonella foenum-graecum Seeds to Combat Water Pollution Caused by Chemical Fertilizers in National Conference on Water Sustainability: Conservation, Policy, Ethics and Science Organized by Department of Environmental Studies & Srishti: Nature and Environment Society Zakir Husain Delhi College (University of Delhi), During January 21-22, 2020.
- Yadav, K., Kumar, D., **Kumar, S.**, Sahoo, D. 2020. Seaweed Liquid Extracts from Gracilaria Species on Seedling Growth of Vigna radiata: A Modern Way in Agriculture, Ecosystem, and Environmental Sustainability in National Conference on Water Sustainability: Conservation, Policy, Ethics and Science Organized by Department of Environmental Studies & Srishti: Nature and Environment Society Zakir Husain Delhi College (University of Delhi), During January 21-22, 2020.
- Redhu, S., Garg, S., Ashraf, A., **Kumar, S.**, and Sahoo, D. 2018. Ocean acidification: Depleting our future energy sources. National Conference on Challenges and Strategies to Improve Crop Productivity in Changing Environment: An Integrated Approach organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, on January 12, 2018.
- Kumari, S. and **Kumar, S.** 2017. A Descriptive Study of Certain Medicinal Weeds of Khekra. National Conference on Pharmacognosy: Scope of Phytochemically Unexplored Medicinal Plants organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, on January 12, 2017.
- **Kumar, S.** Kumar, M., Kumar D. and Sahoo D. What can we do with all these seaweed's industrial waste? 6th International Conference on Algal Biomass, Biofuels and Bioproducts" on 26th-29th June 2016. San Diego, USA. Organized by Elsevier.
- Kumar, M. **Kumar, S.**, Kumar, D. and Sahoo D. Gracilaria verrucosa, a red alga, as a feedstock for agar and biofuel production. 6th International Conference on Algal Biomass, Biofuels and Bioproducts" on 26th-29th June 2016. San Diego, USA. Organized by Elsevier.
- **Kumar, S.** and Sahoo D. Seasonal variations in the alginate content of *Sargassum wightii* and biochemical composition of its leftover pulp. 5th International Conference on Algal Biomass, Biofuels and Bioproducts" on 7th-10th June 2015. San Diego, USA. Organized by Elsevier.
- Kuhad, R.C., Shukla, R., **Kumar, S.**, Kumar, M., Sahoo, D. Improved enzymatic hydrolysis of algal pulp from *Gracilaria verrucosa*. 1st National Bioresources and Sustainable Development summit-2015. Organized by Institute of Bioresources and Sustainable Development. Held at Imphal Manipur, February 19-20,

<p>2015.</p> <ul style="list-style-type: none"> ○ Sahoo, D. Kumar, S. Mass cultivation of <i>Gracilaria verrucosa</i> at Chilika Lake, India for bioethanol production. Algae a World solution: APPF 2014. The 7th Asian Pacific Phycological Forum. Held at Wuhan China September 20-24, 2014. ○ Kumar, S. and Sahoo D. Bioethanol production from Seaweeds. International Algal Summit on “Algae for Sustainable Development” Jointly organized by Indian Phycological Society, New Delhi, India and The Energy and Resources Institute (TERI), New Delhi, India. 21-22 February 2012, New Delhi, India ○ Kumar, S., Verma, P. and Sahoo D. Occurrence of <i>Ceramium</i> sp. as epiphytes on some seaweeds of Port Okha, Gujarat, India. 24th Annual International Conference of NESAI –New Delhi on Bioremediation and Environmental Management and Polar Science & Technology. Held at Presidency College Kempapura, Hebbal, Bangalore -560024, 28th-29th December 2011. ○ Kumar, S., Baweja, P and Sahoo D. Light and scanning electron micrographic studies in cystocarpic plant of <i>Rhodomenia dissecta</i>. 7th Asia-Pacific Conference on Algal Biotechnology Jointly Organized by Department of Botany, University of Delhi, Delhi, India and Indian Phycological Society, New Delhi, India, December 1- 4, 2009, New Delhi, India.
<p>Research Projects (Major Grants/Research Collaboration)</p>
<p>Post-Doctoral Research Fellow under UGC PDFSCST scheme entitled “Utilization of industrial waste of seaweeds for the production of bioethanol and biofertilizer based on zero waste concept” in the Department of Botany, University of Delhi (July 1st, 2014- July 17th 2015).</p>
<p>Awards and Distinctions</p>
<ul style="list-style-type: none"> • UGC POST-DOCTORAL Fellowship for the year 2013-14 • Joint CSIR-UGC NET-JRF (Life Sciences) December 2007 • Joint CSIR-UGC NET (Life Sciences) for Lectureship June 2007 • M.Sc. gold medal: “Dev Raj Memorial Gold Medal” for Best SC/PG Student of the Year 2005 • Rajiv Gandhi National Fellowship from University Grants Commission
<p>Association With Professional Bodies</p>
<p>Indian Phycological Society Delhi University Botanical Society</p>
<p>Other Activities</p>



Signature of Faculty Member