

DEPARTMENT OF BIO & NANO TECHNOLOGY
01-07-2019 to 30-06-2020

Details of the Department

- (I) Name : Department of Biotechnology
 (II) Year of Establishment : 1998
 (III) (a) Has the Vision, Mission, etc. of your Department been defined? : Yes/No
 (b) If answer to (i) above is 'Yes', please state the following:
 (1) Vision Statement: As per University
 (2) Mission Statement: As per university
 (3) Objectives of the Department

- Expose the students in the areas of Microbial, Plant and Animal Biotechnology, Molecular Biology, Genetic Engineering, and Nano Science.
- Expose the students to wide spectrum of Biochemistry, Microbiology, Plant Cell, Tissue and Organ Culture technical skills to infuse versatility and brighten their initiative to develop new range of products.
- Train Students for ability to work independently with technical skill, professional maturity and having adaptability to thrive under diverse pressures, for the innovative undertaking and to liaison with various industries.
- Conduct basic and applied research in the areas of Plant Cell Tissue and Organ culture, Molecular Biology, Biochemistry, Microbial Biotechnology and Nano Science and technology.

(IV) Course Offered in the Department:

Course	Sanctioned intake	Present Strength (Total)
Ph. D	Variable	67
PG	20+4 (DBT Sponsored Biotechnology) 20+2+1+1(Self Financing Biotechnology) 39(Five Year M.Sc. biotechnology) 30+2+1+1(Microbiology) 20 (M.Tech Nano Science)	29 (Sponsored Biotechnology) 29 (Self Financing Biotechnology) 45(Five Year M.Sc. biotechnology) 62(Five Year M.Sc. biotechnology) 02(M.Tech Nano Science) =167
U. G.	35+2+1+1(each year)	41 (Ist Year) +43 (IInd Year)+31 Third Year)+24(Fourth Year)+21(Fifth Year)=115
Any other	NIL	NIL

(V) Faculty Details

(Attach a list of the Faculty along with their qualification and their experience)

Professor		Readers		Lecturers	
Sanctioned	Filled	Sanctioned	Filled	Sanctioned	Filled
01	01	02	01	12	07

Name	Designation	Specialization
Professor Ashok Chaudhury	Professor	Plant Molecular Biology
Professor Neeraj Dilbaghi	Professor	Nano Science & Technology, Molecular Microbiology
Professor Namita Singh	Professor	Microbial Biotechnology, Bio active compound, enzymology, Bioenergy,
Professor Vinod Chhokar	Professor	Biochemistry, Enzymology, Plant Biotechnology, Molecular Biology
Dr. Sandeep Kumar	Associate Professor	Nano Science & Technology
Dr. Rajesh Thakur	Associate Professor	Plant Tissue culture, Nano Technology
Dr. Anil Kumar	Associate Professor	Animal Biotechnology
Dr. Santosh Kumari	Associate Professor	Genetics
Dr. Sapna Grewal	Assistant Professor	Plant Biotechnology

(VI) Non-Teaching Position:

Position	Sanctioned	In Position
Tech. Assistant	01	01 Tech. Assistant
Lab Technician	02	00 Lab Technician
Steno- Typist	02	01 Steno-Typist
Clerk	02	02 Clerk
Peon	04	01 Peon
Lab Attendant-cum-Cleaner	08	04 Lab attendant-cum-Cleaner

(VII) a) Students Details:

Ist Year		Final Year	
Sanctioned Intake	Filled	Sanctioned Intake	Filled
149	103	145	98

Name of the course	Ist Year		Second/Final Year	
	Sanctioned Intake	Filled	Sanctioned Intake	Filled
M.Sc. (Biotechnology)	30 DBT 20 self-finance 50	30 (17 DBT+13 Self-Finance) 30	24(DBT) 24 (Self Finance) 48	12 (DBT) + 23 (Self Finance)=35
M.Tech. (Nano Science and Technology)	20	02	20	00
M.Sc. Microbiology	30+2+1+1+1	30	3+2+1+1	32
B.Sc. M.Sc. Biotechnology	40+2+1+1+1	41	40+2+1	31(BSc. III Year)

b) Foreign Students Admitted: Nil

(VIII) Research Scholars :

Name of the Teacher	Intake Capacity	Total Number of Ph. D. Students	Registered during the Year	Thesis completed during the Year
Prof. Ashok Chaudhary	8	6	-Nil	3
Prpf. Neeraj Dilbaghi	8	8+2*	-	02
Prof. Namita Singh	8	6+1) (co- supervisor)	01	Nil
Prof. Vinod Chhokar	8	13	3	Nil
Dr. Anil Kumar	5	05		Nil
Dr. Sandeep Kumar	5	5	1	2
Dr. Santosh Kumari	5	4	1	-Nil
Dr. Rajesh Rhakur	5	4	2	Nil
Dr. Sapna Grewal	4	3	2	Nil
Total	56	54	10	7

(IX) Sponsored Research Projects :

Title of the Project	Funding Agency & Amount	Name of the Investigator (s)	Project in process	Awarded during the current year	Completed during the current year
Synthesis of pesticide- loaded nanoformulation” by International Industry Adama Agricultural Solutions Ltd. Israel 2017-2019 (25Lakhs /38000\$)	ADMA Agan Ltd Israel International Collaboration 24.89 lakhs	Prof. Neeraj Dilbaghi Dr. Sandeep Kumar	Completed	2017	2021
Development of MOF/QD based optical sensor for determination of phosphate in agricultural land to facilitate effective crop cultivation	DBT-GOI 59.43 Lakhs	Dr Neeraj Dilbaghi and Sandeep Kumar	In Progress	2020	2023
Development of Novel Fluorescent Platforms for the Detection of Heavy Metals in Water” by DBT, Govt of India 2017-2020	DBT-GOI 66.703	Dr Sandeep and Dr Neeraj Dilbaghi	In Progress	2017	2020
Studies on Development of Biosensor for Detection of Explosives (Hydrazine and TNT)” by DRDO, Govt of India. 2017-2020	LSRB- DRDO, Govt of India 38.43 lakh	Prof. Neeraj Dilbaghi and Dr Sandeep Kumar	In Progress	2017	2020
Green Synthesis of Nitrogen Nanofertilizer and its characterization for foliar application in wheat (Triticum aestivum)	UGC Start Up Grants 10 Lacs	Dr. Sapna Grewal	Completed	2017	2017-2019
'To Develop a Process for bioremediation Chromium from Industrial Effluents	HSCST 8,33,800	Dr. Namita Singh and Dr. Raman and	In Progress	2018	2018-21

using Microbial Consortium'					
Development of vegetable based instant Health product	450000/- TEQIP World Bank	Dr. Namita Singh	In Progress	2020	2021
Development of low aliphatic Glucosinolate Brassica juncea using targeted editing of Pathway gene (s) by CRISPR-Cas9 system	Project DST DST, Govt of India 6.60 Woman scientist DBT, Govt of India	ManjuYadav (PI) And Dr. Vinod Chhokar Mentor	Completed	2017	2019
Metal Organic Frameworks-based Platform for Pesticide Removal in Haryana and Punjab Region	HSCST 8.00 Lakh	Dr. Sandeep Kumar and Dr Neeraj Dilbaghi	In Progress	2018	2020
Development of Bacillus spp. As plant growth promoting Rhizobacteria for crop under dryland agriculture	UGC 5.80 Lakhs	Prof. K.K. Kapoor Prof. Emeritus	Completed	1/7/2013	31/6/2015
Expression analysis of Galactomannan biosynthesis pathway genes in cluster bean transcriptome sequencing	DBT 57.39 Lakhs	Prof Ashok Chaudhury	Completed	1/4/2014	31/3/2017

Development of microbial technology for accelerated multi-component municipal organic waste recycling (Indo-Ukrainian Project)	DST Indo Ukraine 39.10 Lakhs	Dr. Namita Singh	In Progress	20/06/2016	20/06/2020
Phytase enzyme production, purification & characterization of indigenous microbe for food & feed application	HSCST 8 Lakhs	Dr. Namita Singh	In Progress	2016-17	2019-2020
"Determination of Natural Uranium in groundwater in Hisar, Bhiwani and Rewari districts of Haryana".	BRNS 22 Lakhs	Prof. Neeraj Dilbaghi PI	completed	2016	2016-2019

(X) Publications of the Faculty (In total):

Name of The Teacher	Books	Research Papers		Research Papers		Articles
		International	National	Referred	Non- Referred	
Prof. Ashok Chaudhary	1	09		09		
Prpf. Neeraj Dilbaghi		18		18	-	01-
Prof. Namita Singh	1	12		11	1	1
Prof. Vinod Chhokar	Nil	8	-Nil	8	-Nil	-Nil
Dr. Anil Kumar	1	6	-	6	-	-
Dr. Sandeep Kumar	01	24		24		
Dr. Santosh Kumari	Nil	05	-Nil	05	Nil	Nil
Dr. Rajesh Thakur	Nil	02	Nil-	02	-NIL	-NIL
Dr. Sapna Grewal	Nil	04	-01	05	01	Nil
Prof. S.S. Dudeja	NIL	02	02	02	Nil	Nil
Dr Anita Rani Gill	Nil	Nil	Nil	Nil	Nil	Nil
Dr. K.D. Rawat	01	01	-	1	01	-
Dr. Rakesh Yadav	Nil	01	Nil	01	Nil	Nil
Dr Ravinder Kumar	Nil	03	Nil	03	Nil	Nil
Total	5	95	3	95	3	3

(XI) Faculty wise details of Publications during Jan 2020 to June 2021:

(a) Books

Prof. Ashok Chaudhury: NIL

Prof. Neeraj Dilbaghi

Prof. Neeraj Dilbaghi	Nanosensors for Environmental Applications	2020	Elsevier
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Prof. Namita Singh: NIL**Dr. Vinod Kumar Chhokar NIL****Dr. Anil Kumar Bhankhar NIL****Dr Sandeep Kumar**

Dr. Sandeep Kumar	Nanostructured Biomaterials for Biomedical Applications	2020 (In press)	Elsevier
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Dr Santosh Kumari NIL**Dr Rajesh Thakur NIL****Dr. Sapna Grewal Nil****Prof. S.S. Dudeja NIL****Dr Anita Rani Gill NIL****Dr Krishan Datt Rawat**

Author (s)	Year	Title of Paper	Name of Journal	Vol. & Pages	Pages	Publisher
Chaubey K K, Singh SV, Singh PK, Gupta S, Vishal K, Choudhary P K, G Pant, Sujata J, Rawat KD . (2020).	2020	Detection of anti-Mycobacterium avium subspecies paratuberculosis antibodies in thyroid and type-1 diabetes patients. Indian Journal of Biotechnology	Indian Journal of Biotechnology	19(1)	49-55	NISCAR
Kumar N, Khandelwal N, Kumar R, Chander Y, Rawat KD , Chaubey KK, Sharma S et al.	2019	Inhibitor of Sarco/Endoplasmic Reticulum Calcium-ATPase Impairs Multiple Steps of Paramyxovirus Replication	Frontiers in microbiology	10: 1-12	1-12	Frontiers

Dr. Rakesh Yadav NIL
Dr Ravinder Kumar NIL
Dr Nayan Tara NIL

(b) Papers

Prof. Ashok Chaudhury

1. Ila Joshi, Anil Kumar, Deshika Kohli, Ashisk K Singh, Anil Sirhoi, K Subramaniam, **Ashok Chaudhury**, Pradeep K Jain (2020). Conferring root-knot nematode resistance via host-delivered RNAi-mediated silencing of four *Mi-msp* genes in *Arabidopsis*. Plant Science **298**; <https://doi.org/10.1016/j.plantsci.2020.110592>.
2. Ila Joshi, Anil Kumar, Ashisk K Singh, Deshika Kohli, K V Raman, Anil Sirhoi, **Ashok Chaudhury**, Pradeep K Jain (2019). Development of nematode resistance in *Arabidopsis* by HD-RNAi-mediated silencing of the effector gene *Mi-msp2*. *Sci Rep* **9**, 17404 (2019). <https://doi.org/10.1038/s41598-019-53485-8>.
3. Kavita Ahuja, Abhishek Vats, Mira Adil Beg, KKG DUL Kariyawasam, **Ashok Chaudhury**, Mitali Chatterjee, Nadira D Karunaweera, Angamuthu Selvapandian. (2019). High resolution melting based method for rapid discriminatory diagnosis of co-infecting *Leptomonas seymouri* in *Leishmania donovani*-induced leishmaniasis. *Parasitology International*. 75:102047. <https://doi.org/10.1016/j.parint.2019.102047>.
4. **Ashok Chaudhury**, Tanvi Kaila, Kishor Gaikwad. (2019). Transcriptome Sequencing of Seeds Collected at Different Developmental Stages of Commercially Important Indian Varieties of Cluster Bean (*Cyamopsis tetragonoloba* L.) for Elucidation of Galactomannan Biosynthesis Pathway Genes. *Scientific Reports*. 9:11539 | <https://doi.org/10.1038/s41598-019-48072-w>.
5. **Ashok Chaudhury**, Anita Devi Dalal, Nayan Tara Sheoran. (2019). Isolation, Cloning and Expression of *CCA1* Gene in Transgenic Progeny Plants of Japonica Rice Exhibiting Altered Morphological Traits. *PLOS ONE*. 14(8):e0220140 <https://doi.org/10.1371/journal.pone.0220140>.
6. Tanvi Kaila, Swati Saxena, G. Ramakrishna, Anshika Tyagi, Kishor U Tribhuvan, Sandhya, **Ashok Chaudhury**, Nagendra Kumar Singh, Kishor Gaikwad. (2019) Comparative RNA editing profile of mitochondrial transcripts in cytoplasmic male sterile and fertile pigeonpea reveal significant changes at the protein level. *Molecular Biology Reports*. 1-18. <https://doi.org/10.1007/s11033-019-04657-2>
7. Pooja Bangar, **Ashok Chaudhury**, Bhavana Tiwari, Sanjay Kumar, Ratna Kumari,

Kangila Venkataramana Bhat. (2019) Morpho-physiological and biochemical response of mungbean [*Vigna radiata* (L.) 2 Wilczek] varieties at different developmental stages under drought stress. *Turkish Journal Biology*. **48**:53-69. Doi: 10.3906/biy-1801-64 ISSN: 1300-0152.

Prof. Neeraj Dilbaghi:

1. Green synthesis of metal–organic frameworks: A state-of-the-art review of potential environmental and medical applications (2020) Sandeep Kumar, Shikha Jain, Monika Nehra, Neeraj Dilbaghi, Giovanna Marrazza, Ki-Hyun Kim, *Coordination Chemistry Reviews* (420), 213407. <https://doi.org/10.1016/j.ccr.2020.213407> (IF: 22.315)
2. 1D Semiconductor Nanowires for Energy Conversion, Harvesting and Storage Applications (2020) Monika Nehra, Neeraj Dilbaghi, Giovanna Marrazza, Ajeet Kaushik, Reza Abolhassani, Yogendra Kumar Mishra, Ki Hyun Kim, and Sandeep Kumar, *Nano Energy* (76), 104991. <https://doi.org/10.1016/j.nanoen.2020.104991> (IF: 17.881)
3. Sn-MOF@ CNT nanocomposite: An efficient electrochemical sensor for detection of hydrogen peroxide (2020) Rani, Sushma, Bharti Sharma, Rajesh Malhotra, Sandeep Kumar, Rajender S. Varma, and Neeraj Dilbaghi, *Environmental Research* 191, 110005. <https://doi.org/10.1016/j.envres.2020.110005> (IF: 6.498)
4. Experimental analysis of heat transfer behavior of silver, MWCNT and hybrid (silver+ MWCNT) nanofluids in a laminar tubular flow (2020) Munish Gupta, Vinay Singh, Sandeep Kumar, and Neeraj Dilbaghi. *Journal of Thermal Analysis and Calorimetry* 1-15. <https://doi.org/10.1007/s10973-020-09453-w> (IF: 3.458)
5. Synthesis and characterization of novel amphiphilic tamarind seed xyloglucan-octenyl succinic anhydride conjugate (2020) Neeraj Dilbaghi, Munish Ahuja, Manju Bernela, Sandeep Kumar, Prashant Bhardwaj, and Harmanmeet Kaur, *Journal of Polymer Research* 27, 1-8. <https://link.springer.com/article/10.1007/s10965-020-02195-1> (IF:2.599)
6. Rapid redox sensing of p-nitrotoluene in real water samples using silver nanoparticles (2020) Sushma Rani, Neeraj Dilbaghi, Sandeep Kumar, Rajender S. Varma, and Rajesh Malhotra, *Inorganic Chemistry Communications* 120, 108157. <https://doi.org/10.1016/j.inoche.2020.108157> (IF:2.495)
7. Nanotechnology enabled the enhancement of antitrypanosomal activity of piperine against *Trypanosoma evansi* (2020) Ruma Rani, Sandeep Kumar, Neeraj Dilbaghi, Rajender Kumar, *Experimental Parasitology* 219, 108018. <https://doi.org/10.1016/j.exppara.2020.108018> (IF:2.011)
8. Fabrication of Zn-MOF@rGO based sensitive nanosensor for the real time monitoring of hydrazine (2020) Sushma Rani, Shivani Kapoor, Bharti Sharma, Sandeep Kumar, Rajesh Malhotra, Neeraj Dilbaghi, *Journal of Alloys and Compounds*, 816, 152509. <https://doi.org/10.1016/j.jallcom.2019.152509> (IF: 5.316)
9. Nanotechnology enabled the enhancement of antitrypanosomal activity of piperine against *Trypanosoma evansi* (2020) Ruma Rani, **Sandeep Kumar**, Neeraj Dilbaghi, Rajender Kumar, *Experimental Parasitology* 219, 108018. <https://doi.org/10.1016/j.exppara.2020.108018>. (IF:2.011)
10. Nanovehicles for plant modifications towards pest-and disease-resistance traits (2020) Sandeep Kumar, Monika Nehra, Neeraj Dilbaghi, Giovanna Marrazza, Satish K Tuteja, Ki-Hyun Kim, *Trends in plant science*, 25(2), pp.198-212. <https://doi.org/10.1016/j.tplants.2019.10.007> (IF:18.313)
11. Carbonaceous nanomaterials as effective and efficient platforms for removal of dyes from aqueous systems (2020) Wandit Ahlawat, Navish Kataria, Neeraj Dilbaghi, Ashraf A Hassan, K H Kim, and **Sandeep Kumar**, *Environmental Research* 181, 108904. <https://doi.org/10.1016/j.envres.2019.108904> (IF: 6.498)
12. Nano-biosensing platforms for detection of cow's milk allergens: an overview (2020)

- Monika Nehra, Mariagrazia Lettieri, Neeraj Dilbaghi, **Sandeep Kumar**, Giovanna Marrazza, *Sensors* (20), 32. <https://doi.org/10.3390/s20010032> (IF: 3.576)
13. Investigating the efficiency of α -Bismuth zinc oxide heterostructure composite/UV-LED in methylene blue dye removal and evaluation of its antimicrobial activity (2020) Moondeep Chauhan, Teenu Jasrotia, Gurveengeet Kaur, Chander Prakash, Rajeev Kumar, Neeraj Dilbaghi, Ganga Ram Chaudhary, and **Sandeep Kumar**, *Environmental Research* (180), 108857. <https://doi.org/10.1016/j.envres.2019.108857> (IF: 6.498)
 14. Nanotechnology-based biomaterials for orthopedic applications: Recent advances and future prospects (2020) **Sandeep Kumar**, Monika Nehra, Deepak Kedia, Neeraj Dilbaghi, K. Tankeshwar, and Ki-Hyun Kim, *Materials Science & Engineering C* (106), 110154. <https://doi.org/10.1016/j.msec.2019.110154> (IF: 7.328)

Prof. Namita Singh

1. Yogesh Chander, Ram Kumar, Nitin Khandelwal, **Namita Singh**, Brij Nandan, Shringi Sanjay Barua, Naveen Kumar (2020) Role of p38 mitogen-activated protein kinase signalling in virus replication and potential for developing broad spectrum antiviral drugs *Rev Med Virol*, Pages 1-16 **Impact Factor 6.989** DOI: [10.1002/rmv.2217](https://doi.org/10.1002/rmv.2217)
2. R Urana, A Dahiya, N **Singh**, P Sharma (2020) A Review on Rhizoremediation: PlantMicrobe Interaction Enhances the Degradation of Polyaromatic Hydrocarbons chapter in book *Microbial Services in Restoration Ecology* , ISBN: 978-0-12-819978-7 , Year 2020, Pages 283-295 ISBN: 978-0-12-819978-7
3. Acharya Balkrishna, Pallavi Thakur, Shivam Singh, Swami Narsingh, **Namita Singh**, Rakesh Kumar Sharma (2020) Computational screening approaches for investigating potential activity of phytoligands against SARS-CoV-2 Short Title: In silico screening of phytochemicals as potent inhibitors of SARS-CoV-2 article <https://www.researchsquare.com/article/rs-23206/v1>, Year 2020
4. Raman Kumar, Priyanka Sharma, Ahmad Umar, Rajeev Kumar, **Namita Singh**, P. K. Joshi, Fahad A. Alharthi, Abdulaziz Ali Alghamdi and Nabil Al-Zaqri (2020) In Vitro Bioadsorption of Cd²⁺ Ions: Adsorption Isotherms, Mechanism, and an Insight to Mycoremediation Processes , Volume 8, Year 2020, Pages 1085 <https://doi.org/10.3390/pr8091085> **Impact Factor 2.847**
5. R Urana, A Dahiya, P Sharma, **Namita Singh** (2019) Effects of Plant Growth Promoting Rhizobacteria on Phytoremediation of Phenanthrene Contaminated Sodic Soil Polycyclic Aromatic Compounds, 1-10 <https://doi.org/10.1080/10406638.2019.1639063> **Impact Factor 1.44**
6. R Urana, **Namita Singh**, P Sharma (2019) Effects of PGPR on growth and photosynthetic pigment of *Trigonella foenum-graceum* and *Brassica juncea* in PAH-contaminated soil *SN Applied Sciences* 1 (7), 1-9 DOI: [10.1007/s42452-019-0780-1](https://doi.org/10.1007/s42452-019-0780-1)
7. Jai Devi, Jyoti Yadav, **Namita Singh** (2019) Synthesis, characterisation, in vitro antimicrobial, antioxidant and anti-inflammatory activities of diorganotin (IV) complexes derived from salicylaldehyde Schiff bases *Research on chemical intermediates*, Volume 45(7), Pages 3943–3968 **Impact Factor 2.914** DOI: [10.1007/s11164-019-03830-3](https://doi.org/10.1007/s11164-019-03830-3)
8. Kumar, Narender; **Singh, Namita**; Jaryal, Rajneesh; Bhandari, Chetna; Singh, Jyoti; Thakur, Pallavi; Duhan, Anil (2019) Purification, characterization and antibacterial spectrum of a compound produced by *Bacillus cereus* MTCC 10072 article *Archive of microbiology*, Volume 201, Year 2019, Pages 1-11 DOI: [10.1007/s00203-019-01685-1](https://doi.org/10.1007/s00203-019-01685-1) **Impact factor 2.552**
9. S. Mor, S. Sindhu, M. Khatri, **Namita Singh**, N. Vasudeva, and N. Panihar (2019) Synthesis, Type II Diabetes Inhibitory Activity, and Antimicrobial Tests of Benzothiazole Derivatives Bridged with Indenedione by Methylenehydrazone

Prof. Vinod Chhokar

1. Bishnoi SK, He X, Phuke RM, Kashyap PL, Alakonya A, **Chhokar V**, Singh RP and Singh, PK (2020). Karnal bunt: A re-emerging old foe of wheat. *Frontiers in Plant Science* 11: 569057. doi: 10.3389/fpls
2. Kumar D, Kumar A, **Chhokar V**, Gangwar O.P et al (2020). Genome-wide association studies in diverse spring wheat panel for Stripe, Stem and Leaf rust resistance. *Frontiers in Plant Science*. 11: 748-775
3. Rabuma T, Gupta O.P. **Chhokar V** (2020). Phenotypic characterization of chili pepper (*Capsicum annuum* L.) under *Phytophthora capsici* infection and analysis of genetic diversity among identified resistance accessions using SSR markers. *Physiological and Molecular Plant Pathology* 112: Published Online First <https://doi.org/10.1016/j.pmpp.2020.101539>
4. Chaudhary P, Beniwal V, Umar A, Kumar R, Sharma P, Kumar A , Al-Hadeethi Y, **Chhokar V** (2020) In vitro microcosm of co-cultured bacteria for the removal of hexavalent Cr and tannic acid: A mechanistic approach to study the impact of operational parameters. *Ecotoxicology and Environmental Safety*. 208 : Published Online First. <https://doi.org/10.1016/j.ecoenv.2020.111484>
5. Dudeja S, Chhokar V, Badgujar H. Chauhan R, Soni S, Beniwal V and Kumar A (2020). Isolation and screening of antibiotic producing fungi from solid-state waste. *Polymorphism*. 4. 59-71

Dr. Anil Kumar

1. Kumar D, Kumar A, **Chhokar V**, Gangwar O.P et al (2020). Genome-wide association studies in diverse spring wheat panel for Stripe, Stem and Leaf rust resistance. *Frontiers in Plant Science*. 11: 748-775
2. Chaudhary P, Beniwal V, Umar A, Kumar R, Sharma P, Kumar A , Al-Hadeethi Y, **Chhokar V** (2020) In vitro microcosm of co-cultured bacteria for the removal of hexavalent Cr and tannic acid: A mechanistic approach to study the impact of operational parameters. *Ecotoxicology and Environmental Safety*. 208 : Published Online First. <https://doi.org/10.1016/j.ecoenv.2020.111484>
3. Dudeja S, Chhokar V, Badgujar H. Chauhan R, Soni S, Beniwal V and Kumar A (2020). Isolation and screening of antibiotic producing fungi from solid-state waste. *Polymorphism*. 4. 59-71

Dr. Sandeep Kumar

1. Green synthesis of metal–organic frameworks: A state-of-the-art review of potential environmental and medical applications (2020) **Sandeep Kumar**, Shikha Jain, Monika Nehra, Neeraj Dilbaghi, Giovanna Marrazza, Ki-Hyun Kim, *Coordination Chemistry Reviews* (420), 213407. <https://doi.org/10.1016/j.ccr.2020.213407> (IF: 22.315)
2. 1D Semiconductor Nanowires for Energy Conversion, Harvesting and Storage Applications (2020) Monika Nehra, Neeraj Dilbaghi, Giovanna Marrazza, Ajeet Kaushik, Reza Abolhassani, Yogendra Kumar Mishra, Ki Hyun Kim, and **Sandeep Kumar**, *Nano Energy* (76), 104991. <https://doi.org/10.1016/j.nanoen.2020.104991> (IF: 17.881)
3. Metal organic frameworks for the adsorptive removal of gaseous aliphatic ketones (2020) Vikrant Kumar, Danil Bukhvalov, Ki Hyun Kim and **Sandeep Kumar**, *ACS Applied Materials and Interfaces* (12), 10317-10331. <https://dx.doi.org/10.1021/acsami.9b20375> (IF: 9.229)
4. Engineering MIL-100(Fe) on 3D porous natural diatoms as a versatile high performing

- platform for controlled isoniazid drug release, Fenton's catalysis for malachite green dye degradation and environmental adsorbents for Pb^{2+} removal and dyes (2020) U. T. Uthappa, G. Sriram, O. R. Arvind, **Sandeep Kumar**, Ho-Young-Jung, Gururaj M. Neelgund, Dusan Losic, and Mahaveer D. Kurkuri, *Applied Surface Science* 528, 146974. <https://doi.org/10.1016/j.apsusc.2020.146974> (I.F.: 6.707)
5. Toxicity profiling of metallosurfactant based ruthenium and ruthenium oxide nanoparticles towards the eukaryotic model organism *Saccharomyces cerevisiae* (2020); Varsha Dogra, Gurpreet Kaur, Rajeev Kumar, **Sandeep Kumar**, *Chemosphere* 128650. <https://doi.org/10.1016/j.chemosphere.2020.128650> (I.F.:7.086)
 6. Carbonaceous nanomaterials as effective and efficient platforms for removal of dyes from aqueous systems (2020) Wandit Ahlawat, Navish Kataria, Neeraj Dilbaghi, Ashraf A Hassan, K H Kim, and **Sandeep Kumar**, *Environmental Research* 181, 108904. <https://doi.org/10.1016/j.envres.2019.108904> (IF: 6.498)
 7. Nanotechnology-based biomaterials for orthopedic applications: Recent advances and future prospects (2020) **Sandeep Kumar**, Monika Nehra, Deepak Kedia, Neeraj Dilbaghi, K. Tankeshwar, and Ki-Hyun Kim, *Materials Science & Engineering C* (106), 110154. <https://doi.org/10.1016/j.msec.2019.110154> (IF: 7.328)
 8. Aspects of Point-of-Care Diagnostics for Personalized Health Wellness (2020) **Sandeep Kumar**, Monika Nehra, Sakina Khurana, Neeraj Dilbaghi, Vanish Saini, Ajeet Kaushik, Ki-Hyun Kim, *International Journal of Nanomedicine* (In press). <https://doi.org/10.2147/IJN.S267212> (IF: 6.400)
 9. Toxicity assessment of palladium oxide nanoparticles derived from metallosurfactants using multi assay techniques in *Allium sativum* (2020) Varsha Dogra, Gurpreet Kaur, Rajeev Kumar, and **Sandeep Kumar**, *Colloids and Surfaces B: Biointerfaces* (187), 110752. <https://doi.org/10.1016/j.colsurfb.2019.110752> (IF: 5.268).
 10. Investigating the efficiency of α -Bismuth zinc oxide heterostructure composite/UV-LED in methylene blue dye removal and evaluation of its antimicrobial activity (2020) Moondeep Chauhan, Teenu Jasrotia, Gurveengeet Kaur, Chander Prakash, Rajeev Kumar, Neeraj Dilbaghi, Ganga Ram Chaudhary, and **Sandeep Kumar**, *Environmental Research* (180), 108857. <https://doi.org/10.1016/j.envres.2019.108857> (IF: 6.498)
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 12. Nano-biosensing platforms for detection of cow's milk allergens: an overview (2020) Monika Nehra, Mariagrazia Lettieri, Neeraj Dilbaghi, **Sandeep Kumar**, Giovanna Marrazza, *Sensors* (20), 32. <https://doi.org/10.3390/s20010032> (IF: 3.576)
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 14. Experimental analysis of heat transfer behavior of silver, MWCNT and hybrid (silver+MWCNT) nanofluids in a laminar tubular flow (2020) Munish Gupta, Vinay Singh, **Sandeep Kumar**, and Neeraj Dilbaghi. *Journal of Thermal Analysis and Calorimetry* 1-15. <https://doi.org/10.1007/s10973-020-09453-w> (IF: 4.626)
 15. Nanotechnology enabled the enhancement of antitrypanosomal activity of piperine against *Trypanosoma evansi* (2020) Ruma Rani, **Sandeep Kumar**, Neeraj Dilbaghi, Rajender Kumar, *Experimental Parasitology* 219, 108018. <https://doi.org/10.1016/j.exppara.2020.108018> (IF:2.011)
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- Kumar**, Rajender S Varma, Neeraj Dilbaghi, *Environmental Research* 191, 110005. <https://doi.org/10.1016/j.envres.2020.110005> (IF:6.498)
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 19. Fabrication of Zn-MOF@ rGO based sensitive nanosensor for the real time monitoring of hydrazine (2020) Sushma Rani, Shivani Kapoor, Bharti Sharma, **Sandeep Kumar**, Rajesh Malhotra, Neeraj Dilbaghi, *Journal of Alloys and Compounds* 816, 152509. <https://doi.org/10.1016/j.jallcom.2019.152509> (IF:5.316)
 20. Nanovehicles for plant modifications towards pest-and disease-resistance traits (2020) Sandeep Kumar, Monika Nehra, Neeraj Dilbaghi, Giovanna Marrazza, Satish K Tuteja, Ki-Hyun Kim, *Trends in plant science*, 25(2), pp.198-212. <https://doi.org/10.1016/j.tplants.2019.10.007> (IF:18.313)

Dr. Rajesh Thakur

1. Promila, Sapna Grewal, Santosh Kumari, Sonia Goel, **Rajesh Thakur** & Shikha Yashveer (2020) Assessment of antibacterial activity of biosynthesised ZnO nanoparticles against *Xanthomonas axonopodis* pv. *malvacearum* causing bacterial blight in cotton. *Journal of Nanoscience & Nanotechnology*, Volume 21, Number 6, June 2021, pp. 3531-3538

Dr. Santosh Kumari

2. Promila, Sapna Grewal, **Santosh Kumari**, Sonia Goel, Rajesh Thakur & Shikha Yashveer (2020) Assessment of antibacterial activity of biosynthesised ZnO nanoparticles against *Xanthomonas axonopodis* pv. *malvacearum* causing bacterial blight in cotton. *Journal of Nanoscience & Nanotechnology*, Volume 21, Number 6, June 2021, pp. 3531-3538
3. Prexha, Sapna Grewal, Promila, **Santosh Kumari** & Sonia Goel (2020) In Vitro antifungal & antibacterial effects of biosynthesized zinc oxide nanoparticles against selected pathogenic and non-pathogenic strains. *Journal of Nanoscience & Nanotechnology*, Volume 21, Number 6, June 2021, pp. 3539-3546

Dr. Sapna Grewal

1. Sonia Goel, Kalpana Singh, **Sapna Grewal** & Manoj Nath (2020) Impact of “Omics” in improving drought tolerance in wheat. *Critical Reviews in Plant Sciences* 39 (3): 222-235 (I.F – 5.1) : <https://doi.org/10.1080/07352689.2020.1778924>

Prof. S.S. Dudeja NIL

Dr Anita Rani Gill Nil

Dr. K. D. Rawat NIL

Dr. Rakesh Yadav

1. Nitu Gautam, Neha Salaria, Kajal Thakur, Sarvjeet Kukreja, Neha Yadav, Umesh Goutam & Rakesh Yadav Green Silver (2020) Nanoparticles for Phytopathogen Control. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences* volume 90, 439–446

Dr Ravinder Kumar

1. Yogi, R., Kumar, N., **Kumar, R.** and Jain, R.K., 2020. Genetic diversity analysis among important rice (*Oryza sativa* L.) genotypes using SSR markers. *Advances in*

Dr. Nayan Tara

1. A Chaudhury, AD Dalal, **NT Sheoran** (2019) Isolation, cloning and expression of *cca1* gene in transgenic progeny plants of *japonica* rice exhibiting altered morphological traits, *PLOS ONE* 14/8/e1932-6 20
2. **Nayan Tara**, AD Dalal, M Sindhu, A Chaudhury (2019) Studies on expression of *cca1* gene in *agrobacterium* mediated genetically transformed *indica* rice, *Research journal of biotechnology*. 14/8/E2278-4 53
3. AD Dalal , **Nayan Tara** , , A Chaudhury(2020). Morphological analysis of T1 and T2 transgenic rice (*Japonica Taipei 309*) Progeny plants harboring *CCA1* gene under the green house. *Research journal of biotechnology*.15(7), 43-51

BOOK CHAPTERS:

1. “Alleviation of Cold Stress by Psychrotrophic Microbes” In book: Advances in Plant Microbiome and Sustainable Agriculture Meena Sindhu, Kamla Malik, Seema Sangwan, Anuj Rana, **Nayan Tara**, Sushil Ahlawat. published by International Publisher Springer Nature Singapore Pt. Ltd. in 2020, DOI: [10.1007/978-981-15-3204-7_8](https://doi.org/10.1007/978-981-15-3204-7_8).

(XII) Participation in Seminars/Conferences/Workshops, etc. during 2020:

(a) International Conferences:

Prof. Ashok Chaudhary: NIL

Prof. Neeraj Dilbaghi

Prof. Namita Singh

Science Leadership Workshop” **June 22-28, 2020 Organized by Central University of Punjab, Bathinda.**

Prof. Vinod Kumar Chhokar NIL

Dr Sandeep Kumar

“Science Leadership Workshop” **June 22-28, 2020 Organized by Central University of Punjab, Bathinda**

Dr Santosh Kumari NIL

Dr. Sapna Grewal NIL

DR K.D Rawat NIL

Dr Rakesh Yadav

- Rakesh Yadav. Genome-Wide Analysis and Expression Profiling of the HMA Gene Family in *Populus trichocarpa*. Inbix2020: Indian Conference on Bioinformatics 2020, Virtual, India, December 4-5, 2020.

(b) **National Conferences**

Prof. Neeraj Dilbaghi

Name of the Faculty	Title of the paper presented	Theme of the Conference/Seminar	Name of the Host organisation	Place	Dates

Dr. Neeraj Dilbaghi	Nanoparticle Conjugated Biomaterial Platforms for Disease Diagnosis and Environmental Sensing Invited Speaker	3rd National Conference on Medical Instrumentation, Biomaterials and Signal Processing NCMBS-2020	Dept of Biomedical Engineering, DCRUST	of Murthal	26-27 Feb, 2020
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DR K.D Rawat NIL

(C) Workshops and Refresher Courses

Prof. Ashok Chaudhury NIL

Prof. Neeraj Dilbaghi

- Organized 5 Subject Refresher Courses, 2 Interdisciplinary Refresher Courses, 4 One Month faculty induction programme, 4 Short term courses and 3 Webinars as Course Director of HRDC.
- Organized and launched IInd and IIIrd Annual Refresher Program for Teachers (ARPIT-2019 & ARPIT-2020) as Course Director and Course Co-ordinator of HRDC through SWAYAM Portal.

Prof. Namita Singh

- Science Leadership Workshop” **June 22-28, 2020 Organized by Central University of Punjab, Bathinda**

Dr. Vinod Kumar Chhokar NIL

Dr. Anil Kumar Bhankhar NIL

Dr Sandeep Kumar NIL

Dr Santosh Kumari

1. Attended Emerald Publishing’s Webinar “**Publishing Impactful Articles**” conducted by UGC- Human Resource Development Centre, Guru Jambheshwar University of Science & Technology, Hisar in association with Emerald Publishing, India on 5th May, 2020.
2. Attended one day webinar on National Webinar on "Role of Science & Technology during COVID-19 Pandemic" on 12 June 2020 by DN college Hisar
3. Attended the International Webinar on “Genetic Engineering in Food Security & Sustainability during COVID 19 pandemic” organized by Department of Sciences, FC college held on 20th June, 2020.
4. Attended one day Webinar on "Women Safety in Current Scenario” on 15 June 2020 organized by Kurukshetra University. Attended the webinar on Publishing Ethics: the role of publishers, journals, researchers and institutions organized by Springer Nature in collaboration with Infilbnet Centre on 25 June 2020.
5. Participated in virtual international conference “NANOFORAGRI 2020 Application of Nanotechnology for Sustainable, Productive and Safer Agriculture and Food System” on 5 and 6 November 2020 organised by TERI-Deakin Nanobiotechnology Centre, Gurugram

Dr Rajesh Thakur NIL

Dr Sapna Grewal NIL

Dr Anita Rani Gill NIL

Dr Krshan Datt Rawat

Name of the Teacher	Title of Refresher Courses	Host organization	Deptt.	University	Place	Dates
Dr Krishan Dutta Rawat	Application of thermodynamics prediction for development of microbial biotechnological approaches	Guru Jambheshwar University of Science & Technology	Bio & Nano technology	Guru Jambheshwar University of Science & Technology	Hisar	12 -21 NOV 2018

Dr Rakesh Yadav NIL

Dr Ravinder Kumar NIL

Dr Nayan Tara NIL

(c) Workshops and Refresher Courses attended:

Prof. Ashok Chaudhury NIL

Prof. Neeraj Dilbaghi NIL

Prof. Namita Singh NIL

Dr. Vinod Kumar Chhokar NIL

Dr. Anil Kumar Bhankhar NIL

Dr Sandeep Kumar NIL

Dr Santosh Kumari NIL

Dr Rajesh Thakur

- One week FDP on Photonics By ATAL Academy Department of Physics GJUS&T, Hisar Online Nov. 2-6 2020
- One week work shop on Workshop On Frontiers in Science & Engineering Science Foundation and MHRD-IIC-DDUC Chapter(Under the aegis of DBT Star College Program) Deen Dayal Upadhyaya College University of Delhi, New Delhi University of Delhi, New Delhi online sept 14-19 2020.
- One week Diverse area of Biotechnology Departemnt of Biomand Nano technology GJUST Hisar Online Aug 25th to sept 2 n2020
- Supportsystem for Enterprenureship development

Dr. Sapna Grewal

- Attended 5 -Days Faculty Development Program on “**E-Content Development**” from June 1, 2020 to June 5, 2020 organised by International Institute of Organised Research.
- Attended webinar on “**COVID-19 काल में किसानों की समस्याएं व समाधान**” organised by Borlaug Academic Association & Biotechnea Club of Faculty of Agricultural Sciences, SGT University Gurugram on June 5, 2020.
- Attended Emerald Publishing’s Webinar “**Publishing Impactful Articles**” conducted by UGC- Human Resource Development Centre, Guru Jambheshwar University of Science & Technology, Hisar in association with Emerald Publishing, India on 5th May, 2020.
- Attended National Webinar on “**Challenges of Teacher Education and COVID-19**” organised by IIMT College of Science & Technology, Greater Noida on June 3, 2020
- Participated in 5 Days Faculty Development Programme on “**MOOCs and**

MOODLE Based Learning Management System” from June 15-22, 2020 through online mode organized by Indira Gandhi University, Meerpur, Rewari.

- Attended One Day National Webinar on **“Role of Science & Technology during COVID-19 Pandemic”** organised by Dayanand College, hisar on June 12, 2020
- Participated in Faculty Development Program on **“Designing and Development of MOOCs”** organised by Internal Quality Assurance Cell (IQAC) of Dyal Singh College, Karnal on June 14, 2020
- Attended National Webinar on **“Writing to Win a Research Grant”** organised by UGC Affairs and Research Committee, Dyal Singh College, Karnal on June 18, 2020
- Attended International Symposium on **“Understanding the Corona Pandemic & its Implications”** organised by Shoolini University, Solan on May23-25, 2020.

Dr Anita Rani Gill **NIL** **Dr Krshan**
Datt Rawat **NIL**
Dr. Rakesh Yadav **Nil**
Dr Ravinder Kumar **NIL**
Dr Nayan Tara **NIL**

(d) Organized

Prof. Ashok Chaudhury: **NIL**
Prof. Neeraj Dilbaghi

- Organized 5 Subject Refresher Courses, 2 Interdisciplinary Refresher Courses, 4 One Month faculty induction programme, 4 Short term courses and 3 Webinars as Course Director of HRDC.
- Organized and launched IInd and IIIrd Annual Refresher Program for Teachers (ARPIT-2019 & ARPIT-2020) as Course Director and Course Co-ordinator of HRDC through SWAYAM Portal.

Prof. Namita Singh **NIL**
Prof. Vinod Kumar Chhokar **NIL**
Dr. Anil Bhankhar **NIL**
Dr Sandeep Kumar **NIL**
Dr Santosh Kumari **NIL**
Dr Rajesh Thakur **NIL**
Dr. Sapna Grewal **NIL**
Dr Anita Rani Gill **NIL**
Dr Krishan Datt Rawat **NIL**
Dr. Rakesh Yadav **NIL**
Dr Ravinder Kumar **NIL**
Dr Nayan Tara **NIL**

(XIII) Association with National and State Level Bodies (Give teacher-wise details):

(i) Member of Professional bodies

Prof. Ashok Chaudhury

1. Member of Executive Council, Guru Jambheshwar University of Science & Technology, Hisar, Haryana.
2. Member of Academic Council, Guru Jambheshwar University of Science & Technology, Hisar, Haryana.

3. Worked as Director, Pandit Deendayal Upadhyaya Incubation & Innovation Centre, Guru Jambheshwar University of Science & Technology, Hisar, Haryana from 7th June 2019 to 10th June 2020.
4. Association of Microbiologist of India (AMI), Life Member.
5. Society, Sustainable Agriculture Resource & Management (SSARM), Life Member.
6. Chairman, House Allotment Committee, Guru Jambheshwar University of Science & Technology, Hisar, Haryana.
7. Members of Board of Studies & Research, Guru Jambheshwar University of Science & Technology, Hisar, Haryana.
8. Members of Board of Studies & Research, Chaudhary Devi Lal University, Sirsa, Haryana.

Prof. Neeraj Dilbaghi

- **Association of Microbiologists of India. (Life Member)**
- **Society for Conservation of Domestic Animal Biodiversity (Life Member)**
- **Society for Sustainable Agriculture & Resource Management. (Life member & Coordinator GJUST Chapter)**

Prof. Namita Singh

- Life member of Association of Microbiologist of India
- Association of Microbiologists of India.(**Life Member**) Executive member of Hisar unit for the year 2005-2006, 2009-2010,2016-2019, Elected General Secretary AMI Hisar Unit 2019-20,
- General Secretary (Elect) 2020 -2023 Association of Microbiologist of India
- Association for promotion of DNA Fingerprinting & other DNA Technologies. (**Life Member L-595**)
- Indian Science Congress.
- Indian Society of Cell Biology
- Indian Science Congress.
- Indian Women scientists Association.
- Society for conservation of Domestic Animal Biodiversity (**Life Member**)
- Society for Sustainable Agriculture & Resource Management

Dr. Vinod Kumar Chhokar

- Life Member, Society of Biological Chemist, India
- Life Member, Association of Microbiologists of India
- life Member, Society for Conservation of Domestic Animal Biodiversity, India
- Life Member, International Aloe Science Council, Texas, USA

Dr. Anil Kumar Bhankhar: NIL

Dr Sandeep Kumar: NIL

Dr Santosh Kumari: NIL

Dr Rajesh Thakur Life Member, Association of Microbiologists of India

Dr. Sapna Grewal: NIL

Prof. S.S. Dudeja:

- **Member of RAC(Research Advisory Committee)** of National Bureau of Agriculturally Important Microorganisms (ICAR –NBAIM, Mau, U.P.) 2019-2022
- Consultant on Microbial inoculants – organic inputs(ICRISAT) under Asian Development Bank, Manilla (Aug 2019 – March 2020)
- **In the panel of Experts of ASRB for Microbiology discipline, New Delhi- Attended two meetings during this period.**

- Acted as External Expert in the selection committee of Professor of Biotechnology, CDLU, Sirsa
- Journal of Basic Microbiology (Germany) **Senior Editor Plant Microbe Interactions**

Dr Anita Rani Gill: NIL

Dr Krshan Datt Rawat: NIL

Dr. Rakesh Yadav Member

- American Nano Society

Dr Ravinder Kumar: NIL

Dr Nayan Tara: NIL

(i) Member of Expert Committee

Name of the Teacher	Expert Committee
<p>Prof. Ashok Chaudhury</p>	<ul style="list-style-type: none"> ➤ Member of Executive Council, Guru Jambheshwar University of Science & Technology, Hisar, Haryana. ➤ Member of Academic Council, Guru Jambheshwar University of Science & Technology, Hisar, Haryana. ➤ Worked as Director, Pandit Deendayal Upadhyaya Incubation & Innovation Centre, Guru Jambheshwar University of Science & Technology, Hisar, Haryana from 7th June 2019 to 10th June 2020. ➤ Association of Microbiologist of India (AMI), Life Member. ➤ Society, Sustainable Agriculture Resource & Management (SSARM), Life Member. ➤ Chairman, House Allotment Committee, Guru Jambheshwar University of Science & Technology, Hisar, Haryana. ➤ Members of Board of Studies & Research, Guru Jambheshwar University of Science & Technology, Hisar, Haryana. ➤ Members of Board of Studies & Research, Chaudhary Devi Lal University, Sirsa, Haryana.
<p>Prof. Neeraj Dilbaghi</p>	<ul style="list-style-type: none"> ➤ Expert Reviewer for Evaluation of Projects submitted under UGC-Scheme for Trans disciplinary Research for India's Developing Economy (STRIDE) Program under Component 2. ➤ Member of Executive Council of Haryana State Council for Science and Technology, Government of Haryana. ➤ Member of Expert Committee for preparation of Road Map Document for restructuring/expansion of Science & Technology Department Haryana and its implementation of Haryana State Council for Science and Technology, Government of Haryana. ➤ Member of Expert Panel nominated by Haryana State Council for Science and Technology, Government of Haryana for finalization of Research & Development (R&D) Projects for the year 2020-21. ➤ Member of Expert Panel nominated by Haryana State Council for Science and Technology, Government of Haryana for Screening of Research & Development (R&D) Projects for the year 2020-21. ➤ Expert Member nominated by HSCST, Government of Haryana for Shortlisting of Proposals under DBT Skill Vigyan State Partnership Program in Life Science and Biotechnology (17-9-2020) ➤ Member of Expert Panel nominated by Haryana State Council for Science and Technology, Government of Haryana for finalization of Research & Development (R&D) Projects for the year 2019-20.

	<ul style="list-style-type: none"> ➤ Member of Expert Panel nominated by Haryana State Council for Science and Technology, Government of Haryana for Screening of Research & Development (R&D) Projects for the year 2019-20. ➤ Institutional Coordinator (RUSA) of GJUS&T, Hisar. ➤ Member of Departmental Research Committee, Staff council and Scientific Advisory Committee of Dept of Bio & Nano Technology. ➤ Member of Board of Studies of Dept of Bio & Nano Technology. ➤ Member of Faculty of Science and Technology Interface. ➤ Member of Women Cell of the University. ➤ Member of Institutional Animal Ethics Committee of GJUST, Hisar. ➤ Outside Expert Member of Internal Quality Assurance cell of CRSU, JIND. ➤ Outside Expert Member of Internal Quality Assurance cell of JC Bose YMCAUS&T, Faridabad. ➤ Outside Expert Member of Internal Quality Assurance cell of DCRUST, Murthal. ➤ Coordinator, Hisar Knowledge Hub, Cluster of institutes. ➤ Member, Research Promotion Board, GJUS&T, Hisar. ➤ Incharge Radio-Ecology Centre. ➤ Member of DST- Purse Project implementation. ➤ Course Director & Course Coordinator, National Resource Centre, HRDC, GJUST Hisar. ➤ Member of NAAC Steering Committee for NAAC, Cycle-IV. ➤ Internal Member of Internal Quality Assurance cell of GJUS&T, Hisar. ➤ Member of Research Promotion Board of GJUS&T, Hisar. ➤ Member of PGBOSR, CBLU Bhiwani. ➤ Member of PGBOSR Department of Bioinformatics MDU Rohtak ➤ External expert of Member of PG BOSR Department of Bioinformatic MDU Rohtak, ➤ Member of BOSR North-Eastern Hill University Department of Rural Development & Agricultural Production Tura Campus, Tura-794002, West Garo Hills, Meghalaya ➤ UGC Chairman Nominee for CPE advisory board of S S Khanna College Allahabad ➤ UGC Chairman Nominee of Governing council of R.J. College Mumbai ➤ UGC Chairman Nominee member of Governing council of Duvvuru Ramanamma Womens College GUDUR-524101 ➤ UGC Chairman Nominee Expert Committee visit to SRM Institute of Science and Technology related to recognition of ODL programme 2018-19. ➤ UGC Chairman Nominee Expert Committee visit to SRM Institute of Science and Technology related to recognition of ODL programme 2018-19 ➤ UGC Chairman Nominee Expert Committee visit to Spicer Adventist University, Pune 2019 ➤ UGC Chairman Nominee Expert Committee visit to Centre for Environment Institute of Science and Technology Jawaharlal Nehru Technological University Hyderabad Telangana , INDIA
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	<ul style="list-style-type: none"> ➤ UGC Chairman Nominee Expert Committee visit to Sikkim Manipal University Sikkim ODL programme 2018-19 ➤ Expert committee member of COE proposal of Different State University of M.P. under RUSA grant Madhya Pradesh Govt.of India ➤ Member of IBSC, LLRU, Hisar DBT Nominee ➤ Member of IBSC, IPR-cell, BOSR, AC member of GJUS&T, Hisar. ➤ UGC Chairman Nominee Expert Committee visit to Rama Devi Women's University, Bhubaneswar, Odisha for on-the-spot assessment of the infrastructure and other facilities available with the University and submission of its report to consider the proposal of the university for inclusion under Section 12-B of the UGC Act, 1956. ➤ Member of selection committee assistance professor At Delhi university Delhi ➤ Member of CAS selection committee at Ambedekar institute of Biomedical Sciences at University of Delhi. ➤ Acted as subject expert for CAS Selection committee Department of Biotechnoloft Jiwaji University Gawalior ➤ Acted as Ph.D. Thesis evaluation expert in Biotechnology, Bioinformatics MDU Rohtak, JNU, Delhi University ,DAVV Indore, Barkatullaha University Bhopal. ➤ Acted as Pannelist in the One day National seminar on Pedogogical Concerns Challenges and Solutions in the Wake of Covid-19 crisis held on 25th May, 2020 11:00 to 1:00 PM. Organized by S.S. Khanna Girls Degree College, Allahabad, An Autonomous NAAC A Grade College U.P.
Prof. Vinod Kumar Chhokar	<ul style="list-style-type: none"> ➤ Acted as external expert for the CAS promotion in CCS HAU ➤ Acted as external expert for screening of applications for the post of Assistant Professor and Associate Professor at CUH, Mahindergarh ➤ Acted as external expert for the PhD's thesis evaluation of MDU, Rohtak, PU Chandigarh, JNU, New Delh
Dr Anil Kumar Bhanekar	➤ NSS Cordinator GJUS&T, Hisar
Dr Sandeep Kumar	NIL
Dr. Santosh Kumari	NIL
Dr Rajesh Thakur	NIL
Dr Sapna Grewal	NIL
Prof.S.S. Dudeja	<ul style="list-style-type: none"> ➤ Member of RAC(Research Advisory Committee) of National Bureau of Agriculturally Important Microorganisms (ICAR – NBAIM, Mau, U.P.) 2019-2022 ➤ Consultant on Microbial inoculants – organic inputs(ICRISAT) under Asian Development Bank, Manilla (Aug 2019 – March 2020) ➤ In the panel of Experts of ASRB for Microbiology discipline, New Delhi- Attended two meetings during this period. ➤ Acted as External Expert in the selection committee of Professor of Biotechnology, CDLU, Sirsa Journal of Basic Microbiology (Germany) - Senior Editor – Plant Microbe Interactions

Prof. Ashok Chaudhary	NIL
Prof. Neeraj Dilbaghi	<ul style="list-style-type: none"> ➤ Outside Expert – PG Board of Studies, Deptt. Of Biotechnology, DCRUST, Murthal ➤ Outside Expert – PG Board of Studies, Deptt. Of Biotechnology, CDLU, Sirsa. ➤ Outside Expert – DRC, Deptt. of Biomedical Engineering, DCRUST, Murthal ➤ Outside Expert –Board of Faculty of Humanities and Sciences, YMCA, Faridabad. ➤ Outside Subject Expert –Board of Studies, Department of Biotechnology UIET, KUK. ➤ Outside Subject Expert –Board of Studies of Affiliating Colleges UIET, KUK. ➤ Outside Subject Expert –Board of Studies, Department of Biotechnology, KUK. ➤ Outside Subject Expert –Board of Studies, Department of Biotechnology Punjabi University, Patiala. ➤ Outside Subject Expert –Academic Audit of Mechanical Engg, YMCAUS&T, Faridabad. (17 March, 2020) ➤ Outside Subject Expert –Academic Audit of Basic and Applied Science department. NIFTEM, Kundli, Sonapat. (4 March 2020) ➤ Outside Expert – School Board of School of Environment and Earth Sciences, Central University of Punjab, Bathinda. ➤ Outside Expert – PGBOS, Deptt. of Food Technology, CDLU, Sirsa. ➤ Member Nominee of Academic Planning Board of CDLU, Sirsa
Prof. Namita Singh	<ul style="list-style-type: none"> ➤ Member of Advisory Committee Intellectual Property Rights and Technology Commercialization Cell (IPR & TCC), GJUS&T, Hisar ➤ Member of BOSR CUH, Mahendergd ➤ Member of BOS Department of Biotechnology university college of engineering KUK. ➤ Member of UGBOS , CDLU, Sirsa ➤ Member of PGBOSR, CBLU Bhiwani. ➤ Member of PGBOS Department of Bioinformatics MDU Rohtak ➤ External expert of Member of PG BOSR Department of Bioinformatic MDU Rohtak, ➤ Member of BOSR North-Eastern Hill University Department of Rural Development & Agricultural Production Tura Campus, Tura-794002, West Garo Hills, Meghalaya ➤ UGC Chairman Nominee for CPE advisory board of S S Khanna College Allahabad ➤ UGC Chairman Nominee of Governing council of R.J. College Mumbai ➤ UGC Chairman Nominee member of Governing council of Duvvuru Ramanamma Womens College GUDUR-524101 ➤ UGC Chairman Nominee Expert Committee visit to SRM Institute of Science and Technology related to recognition of ODL programme 2018-19.

	<ul style="list-style-type: none"> ➤ UGC Chairman Nominee Expert Committee visit to SRM Institute of Science and Technology related to recognition of ODL programme 2018-19 ➤ UGC Chairman Nominee Expert Committee visit to Spicer Adventist University, Pune 2019 ➤ UGC Chairman Nominee Expert Committee visit to Centre for Environment Institute of Science and Technology Jawaharlal Nehru Technological University Hyderabad Telangana , INDIA 2019 ➤ UGC Chairman Nominee Expert Committee visit to Sikkim Manipal University Sikkim ODL programme 2018-19 ➤ Expert committee member of COE proposal of Different State University of M.P. under RUSA grant Madhya Pradesh Govt.of India 2019 ➤ Member of IBSC, LLRU, Hisar DBT Nominee ➤ Member of IBSC, IPR-cell, BOSR, AC member of GJUS&T, Hisar. ➤ UGC Chairman Nominee Expert Committee visit to Rama Devi Women's University, Bhubaneswar, Odisha for on-the- spot assessment of the infrastructure and other facilities available with the University and submission of its report to consider the proposal of the university for inclusion under Section 12-B of the UGC Act, 1956. ➤ Member of selection committee assistance professor At Delhi university Delhi ➤ Member of CAS selection committee at Ambedekar institute of Biomedical Sciences at University of delhi. ➤ Acted as subject expert for CAS Selection committee Department of Biotechnoloft Jiwaji University Gawalior ➤ Acted as Ph.D. Thesis evaluation expert in Biotechnology, Bioinformatics MDU Rohtak, JNU, Delhi University ,DAVV Indore, Barkatullaha University Bhopal ➤ Subject Expert syllabus desing committee for M.Sc. and B.Sc. Microbiology at Microbiology Department, Sheth P. T. Mahila College of Arts & Home Science, Surat, Gujarat.
Prof. Vinod Chhokar	<ul style="list-style-type: none"> ➤ Outside Subject Expert, Advisory Committee to monitor the progress of DBT supported Post Graduate Teaching Programme in Biotechnology in HP University, Shimla [August 8, 2018 to August 7,2020] ➤ External Subject Expert, Post Graduate Board of Studies & Research, Department of Biotechnology, HP University, Shimla [January 12, 2019 to January 11, 2021] ➤ External Subject Expert, Under Graduate Board of Studies, Department of Biotechnology, M.D. University, Rohtak [July 17, 2019 to July 16, 2021] <p>Additional duties performed</p> <ul style="list-style-type: none"> ➤ Nodal Officer, Association of Indian Universities , GJUST, Hisar
Dr. Anil Kumar	<ul style="list-style-type: none"> ➤ Program Coordinator of NSS ➤ House counselor of sports ➤ Training and placement officer of the department

(XIV) Details of Consultancy Work in the Department: Nil

Job Work	Name of agency	Total amount

(XV) Lecturers delivered (Give teacher-wise details):

Invited talks delivered in Refresher Courses	
Extension Lecturer	Prof. Ashok Chaudhury
	Prof. Neeraj Dilbaghi Invited talk 24 Extension Lecture 7 Any other 01
	<ol style="list-style-type: none">1. Delivered one invited lecture on “NANOTECHNOLOGY- Applications for ENVIRONMENT & SUSTAINABLE Development” to the participants of Refresher Course on EVS organized by UGC-HRDC, PU, Chandigarh on 26-1-2020.2. Delivered One Invited Keynote lecture and Chief Guest on “Science Technology & Innovation for Sustainable Development During & Post Covid ” to the participants National Science Day 2021 organized by RKSD (PG) College, Kaithal on 28-2-2020.3. Delivered One invited expert lecture on “Applications & Prospects of Nanobiotechnology in Environment” to the PG students in Popular Lecture series organized by Department of Environment Sciences, MDU, Rohtak on 7-2-2020.
	Prof. Namita Singh <ul style="list-style-type: none">➤ Talk Delivered on Line webinar at S.S. Khanna College On Biotechnology carrier opportunity for the Biotechnology Student and teacher in the International Seminar sponsored by S S Khanna College Allahabad.➤ Talk Delivered in webinar organized by S,S, khanna College Allahabad On New education policy Lecture delivered at CUH Mahenderghad➤ Talk delivered in the department of Bioinformatics MDU Rohtak. Cloud computing present and future in the field of life sciences
	Dr. Rakesh Yadav <ul style="list-style-type: none">➤ Fundamentals of Bioinformatics, Govt. college, Hisar, 06/2020.

Any other

(XVI) Details of the Academic Activities/ Programs organized in the Department during the year:

- (i) Seminar /Conferences/ Refresher Courses etc. NIL
- (ii) Extension Lecturers NIL

- (iii) Students Tours/ Training Programmes NIL
- (iv) Industry Interaction Programs NIL
- (v) Any other

(XVII) Any other Information:

Seminar and conferences organized by all faculty

Prof. Neeraj Dilbaghi

- Organized 5 Subject Refresher Courses, 2 Interdisciplinary Refresher Courses, 4 One Month faculty induction programme, 4 Short term courses and 3 Webinars as Course Director of HRDC.
- Organized and launched IInd and IIIrd Annual Refresher Program for Teachers (ARPIT-2019 & ARPIT-2020) as Course Director and Course Co-ordinator of HRDC through SWAYAM Portal.

Seminar/ workshop: NIL