

## FACULTY PROFILE



**NAME:** DR. PRAMOD KUMAR MAHISH

**DESIGNATION:** Asst. Professor of Biotechnology

**DEPARTMENT:** Biotechnology

**Institution:** Govt. Digvijay Autonomous PG College  
Rajnandgaon

**e-mail address:** [drpramodkumarmahish@gmail.com](mailto:drpramodkumarmahish@gmail.com)

**CONTACT NO.:** +91 7999882099

### OVERVIEW:

	Subject/Title for PhD	Year	From (University)
Graduation	Microbiology	2005	CMD PG College, affiliated with Gurughasidas University Bilaspur
Post-Graduation	Medical Biotechnology	2007	Pt. J. N. M. Medical College Raipur
M.Phil.	Biotechnology	2009	Pt. Ravishankar Shukla University Raipur
Ph.D.	Biotechnology	2014	Pt. Ravishankar Shukla University Raipur

**AWARDS:**(1) UGC National Fellowship to pursue Ph.D. degree. Letter No. F.14-2/2010/(SA-III)

(2) Fellow of the World Researchers Association (FWRA)

**COURSES TAUGHT:**FYUG (NEP 2020), M.Sc. Biotechnology and Ph.D. Biotechnology

## ADDITIONAL RESPONSIBILITIES:

1. **Chairman, BOS, Biotechnology, Hemchand Yadav Vishwavidyalay Durg (Chhattisgarh) (2020-2023)**
2. **Member, Central BOS, Biotechnology (2016 to present)**
3. **Member IQAC (2017-2023)**

## PUBLISHED PAPERS:

1. Iqbal Ansari, Charu Arora, Aazad Verma, Alaa El Din Mahmoud, Maha M. El-Kady, Ravikumar Rajarathinam, Dakeshwar Kumar Verma & **Pramod Kumar Mahish**. A Critical Review on Biological Impacts, Ecotoxicity, and Health Risks Associated with Microplastics. *Water Air Soil Pollut.* 236, 88 (2025). <https://doi.org/10.1007/s11270-024-07731-z>
2. **Pramod Kumar Mahish**, Dakeshwar Kumar Verma, Anjali Ghritlahare, Charu Arora and Paz Otero. Microbial bioconversion of food waste to bio-fertilizes. *Sustainable Food Technology*, 2024, 1(2): 689-708. DOI: <https://dx.doi.org/10.1039/D3FB00041A>
3. Garima Madhariya, Shweta Singh Chauhan, **Pramod Kumar Mahish**, Shriram Kunjam. Inhabitants of endophytic *Phoma* spp. *International Journal of Futuristic Innovation in Engineering, Science and Technology (IJFIEST)*, 2023, 2(2): 243-272. DOI: <https://doi.org/10.59367/r2cq6044>
4. Kiran Jain, Samiksha Jain, Yogeshwari Tiwari, Shweta Singh and **Pramod Kumar Mahish** Toxigenic Fungal contamination of some Indian Main Spices, *Indian Journal of Aerobiology*, 2023, 36(2):13-19.
5. **Pramod Kumar Mahish**, Ujjwala fule, Madhulika Pandaw and Arpita Rakshit. 2022. The use of Medicinal plant extract in Hand sanitizer and Spray to combat against Covid-19. *Biosciences Biotechnology Research Asia*, 19(1)
6. Shriram Kunjam, Shweta Singh Chauhan, Ravishankar Chauhan, **Pramod Kumar Mahish**, Shailesh Kumar. Addition of *Butea monosperma* var. *Lutea* (Fabaceae) in the flora of district Rajnandgaon, Chhattisgarh, India. *International Journal of Botany Studies*, 6,3:394-397.
7. Shailesh Kumar Jadhav, **Pramod Kumar Mahish**. Biosorption of Lead from Aqueous Solution using a New Fungal strain *Cunninghamella elegans* TUFC 20022. 2020, *Research Journal of Biotechnology*, 15,12:35-42.
8. Garima Madhariya and **Pramod Kumar Mahish**. Modeling of vertical and horizontal subsurface flow constructed wetlands: A review. *International Journal of Ecology and Environmental Sciences*. 2020. 2;4: 484-490
9. Shweta Singh Chauhan, **Pramod Kumar Mahish**. Flavonoids of the flame of forest- *Butea monosperma*. *Research J. Pharm. and Tech.* 2020; 13(11):5647-5653. doi: 10.5958/0974-360X.2020.00984.1
10. Sanjay Thiske and **Pramod Kumar Mahish**. Tiger roaming for survival a case study of Rajnandgaon district, Chhattisgarh (India). *Research Fronts*, 2020, 10: 84-94.
11. **Pramod Kumar Mahish**, KL Tiwari, SK Jadhav. 2019. Lead Toxicity, Measurement and Control. *NewBioWorld*, 1(2) 1-8.

12. **Pramod Kumar Mahish**, K. L. Tiwari and S. K. Jadhav. 2018. Biosorption of Lead by Biomass of Resistant *Penicillium oxalicum* isolated from Industrial Effluent. *Journal of Applied Sciences*, 18(1): 41-47.
13. Shikha Shrivastava, **Pramod Kumar Mahish** and Anjali Ghritlahare, 2018. Effect of Industrial Fly Ash on the Growth of Some Crop Field Soil Fungi Adapted with Ash Content, *International Journal of Agriculture, Environment and Biotechnology*, 11(1): 203-207. DOI: 10.30954/0974-1712.2018.00178.26
14. **Pramod Kumar Mahish** and Anjali Ghritlahare, 2017. Pathogenicity of *PhomaChrysanthemicola* to *Chrysanthemum* Plants (Asteraceae Family) and Control of Pathogen by Chemical and Biological Approach, *Biosciences Biotechnology Research Asia*, 14(3): 1191-1200.
15. **Pramod Kumar Mahish**, 2017. Water Audit: A Case Study of Govt. Digvijay Autonomous Post Graduate College Rajnandgaon, Chhattisgarh, *Indian J. Sci. Res.* 13 (2): 79-81.
16. **Pramod Kumar Mahish**, Raju Mahobia and Jitendra Yadav, 2016. Use and Awareness of Herbal Medicines Among Literate Population. *International Journal of Pharma and Bio Sciences*, 7(4): 174 – 178.
17. **Pramod Kumar Mahish**, 2015. Physico-Chemical Assessment of Pond Water, Municipal Sewage and Industrial Effluent of Rajnandgaon (Chhattisgarh), India. *International Journal of Science, Environment and Technology*, 4 (6): 1549 – 1557.
18. **Pramod Kumar Mahish**, 2015. Traditional Fish Processing and Economic Status of Fishermen of Central India with Special reference to Rajnandgaon, Chhattisgarh, India. *International Research Journal of Biological Sciences*, 4(9), 33-42.
19. **Pramod Kumar Mahish**, K.L. Tiwari and S.K. Jadhav, 2015. Biodiversity of Fungi from Lead Contaminated Industrial Waste Water and Tolerance of Lead Metal Ion by Dominant Fungi. *Research Journal of Environmental Sciences* 9 (4): 159-168 (DOI: 10.3923/rjes.2015.159.168)
20. **Pramod Kumar Mahish** and Sanjay Thiske. Physico-chemical Properties of Different Water Sources of Rajnandgaon (Chhattisgarh), India: A Pollution Monitoring Study. *Research fronts*, 2015, 5: 77-84.
21. **Pramod Kumar Mahish**. 2014. Cellulolytic Potentiality of Some Microorganisms (A case Study of Rajnandgaon Paper Mill Effluent), *Research Front*, 4 (63-66).
22. **Pramod K. MAHISH**, Kishan L. TIWARI and Shailesh K. JADHAV. 2014. Physiochemical and Microbial Studies of Paper Mill Effluent, Raipur (Chhattisgarh) India. *Banat's Journal of Biotechnology*, 5 (9): 57-62 (DOI: 10.7904/2068-4738-V(9)-57)
23. **Pramod Kumar Mahish**, K. L. Tiwari and S. K. Jadhav. 2013. Tolerance of Lead by Some Fungal species Isolated From Industrial Waste Water. *DCSI*, 9 (2): 229-232.

24. Pramod Kumar Mahish, K. L. Tiwari and S. K. Jadhav. Estimation of amylase produced from *Penicillium rugulosum* using Starch-Iodine Method. *Research Fronts*, 2013 3:66-70
25. Tiwari K. L., Jadhav S. K. and **Mahish P. K.** 2010. Effect of Xenobiotics on against some fungal Species. *Deccan Current Science*, **3 (1)** p. 1-12.

## BOOKS

Title of Book	Author/s Editor/s	Publisher	Year	ISBN
Heavy Metals: Global Pollution Updates and Recent Management Strategies	Dakeshwar Kumar Verma, Chandrabhan Verma and Pramod Kumar Mahish	American Chemical Society (ACS) USA	2024	9780841297050
Biosorbents: Diversity, Bioprocessing and Applications	Pramod Kumar Mahish, Dakeshwar Kumar Verma and Shailesh Kumar Jadhav	Taylor & Francis Group, LLC, USA	2024	978-1-03-239974-4
Phytochemicals in Medicinal Plants: Biodiversity, Bioactivity and Drug Discovery	Charu Arora, Dakeshwar Kumar Verma, Jeenat Aslam, Pramod Kumar Mahish	Walter de Gruyter GmbH, Genthiner Str. 13, 10785 Berlin, Germany	2023	978-3-11-079176-1
Essential Oils: Sources, Production and Applications	Rajendra Chandra Padalia, Dakeshwar Kumar Verma, Charu Arora, Pramod Kumar Mahish	Walter de Gruyter GmbH, Genthiner Str. 13, 10785 Berlin, Germany	2023	978-3-11-079159-4
Role of Applied Sciences in Social Implications Volume A: Chemical Science	Gokul Ram Nishad, Dakeshwar Kumar Verma, Pramod Kumar Mahish, Suresh Kumar Patel and Hemant Kumar Saw	ProbeCell Press, India	2023	978-81-956770-8-5
Role of Applied Sciences in Social Implications Volume B: Earth, Environment & Energy	Gokul Ram Nishad, Suresh Kumar Patel, Dakeshwar Kumar Verma, Pramod Kumar Mahish, Hemant Kumar Saw	ProbeCell Press, India	2023	978-81-956770-9-2
Role of Applied Sciences in Social Implications Volume C: Life Science	Pramod Kumar Mahish, Dakeshwar Kumar Verma, Suresh Kumar Patel, Hemant Kumar Saw, Kaushal Kumar Sahu	ProbeCell Press, India	2023	978-81-959977-1-8

Role of Applied Sciences in Social Implications Volume D: Mathematics and Computer Science	Hemant Kumar Saw, Kavita Sakure, Suresh Kumar Patel, Pramod Kumar Mahish, Dakeshwar Kumar Verma, Raju Khuttey	ProbeCell Press, India	2023	78-81-959977-0-1
Role of Applied Sciences in Social Implications Volume E: Physics & Electronics	Suresh Kumar Patel, Hemant Kumar Saw, Pramod Kumar Mahish, Dakeshwar Kumar Verma, Ashutosh Patel	ProbeCell Press, India	2023	978-81-959977-2-5
प्रयोगात्मक जैवप्रौद्योगिकी एवं सूक्ष्मजीवविज्ञान	S. K. Jadhav and Pramod Kumar Mahish	Chhattisgarh Rajya Hindi Granth Acadmi	2018	978-93-82313-45-8
Pathogenicity of <i>PhomaChrysanthemicola</i> to Chrysanthemum	Pramod Kumar Mahish	Lambert Academic Publishing	2018	978-613-4-98541-3

## BOOK CHAPTERS

1. Shushil Kumar Rai, Roseline Xalxo, Tarun Kumar Patle, Astha Verma, Ravishankar Chauhan, and **Pramod Kumar Mahish**, **Chapter 10** Analyzing Contamination of Heavy Metals - AAS and Fluorescence Spectroscopy. In Heavy Metals in the Environment: Management Strategies for Global Pollution, Eds Dakeshwar Kumar Verma, Chandrabhan Verma, Pramod Kumar Mahish. Pages 167-204, American Chemical Society, USA ISBN 978-0-84-129705-0.
2. Elyor Berdimurodov, Khasan Berdimuradov, Kholmurodov Bahodir, Abduvali Kholikov, Khamdam Akbarov, Omar Dagdag, Mohamed Rbaa, Brahim El Ibrahim, Dakeshwar Kumar Verma, Rajesh Haldhar, **Pramod Kumar Mahish**, **Chapter 1** Recent trends and developments in carbon dots. In Carbon Dots in Biology: Synthesis, Properties, Biological and Pharmaceutical Applications. Eds Berdimurodov Elyor Tukhliyevich and Dakeshwar Kumar Verma. PP 1-14, 2023, ISBN 9783110799927.
3. Varsha Meshram, Khemraj, **Pramod Kumar Mahish**, and Nagendra Kumar Chandrawanshi. **Chapter 16** - Mushroom Cultivation and Application in Green Technology. Book Title - Microbial Approaches for Sustainable Green Technologies, Editor(S) - Jata Shankar, Pradeep Verma, Maulin P. Shah, Publisher - Taylor & Francis Group, USA. P. ISBN - 304-317. 9781003407683
4. Shivendra Singh Dewhare, Nagendra Kumar Chandrawanshi, Shekhar Verma, Sonam Soni and **Pramod Kumar Mahish**. **Chapter 6**: Extraction, production, and encapsulation of

- essential oils. In *Essential Oils: Sources, Production and Applications*. 2023. DeGruyter ISBN 978-3-11-079159-4.
5. Nagendra Kumar Chandrawanshi, Deepali, Anjali Kosre, Shivendra Singh Dewhare, Shekhar Verma, **Pramod Kumar Mahish** and Ashish Kumar. **Chapter 7:** Bioactivity of essential oils – anticancer, anti-HIV, antiparasitic, anti-inflammatory, and other activities. In *Essential Oils: Sources, Production and Applications*. 2023. DeGruyter ISBN 978-3-11-079159-4.
  6. Deepali Koreti, Anjali Kosre, **Pramod Kumar Mahish**, Nagendra Kumar Chandrawanshi and Shri Ram Kunjam. **Chapter 11:** Application of essential oils in alternative medicine. In *Essential Oils: Sources, Production and Applications*. 2023. DeGruyter ISBN 978-3-11-079159-4.
  7. Tarun Kumar Patle, **Pramod Kumar Mahish** and Ravishankar Chauhan. **Chapter 4:** Plants Alkaloids & Flavonoids: Biosynthesis, Classification, and Medicinal Uses. In *Phytochemicals in Medicinal Plants Biodiversity, Bioactivity and Drug Discovery*. 2023. DeGruyter ISBN 978-3-11-079176-1.
  8. Shweta Singh, Ravishankar Chauhan, Nagendra Kumar Chandrawanshi and **Pramod Kumar Mahish**. **Chapter 14:** Bioactivity of Nanoparticles Synthesized from Medicinal Plants. 2023. DeGruyter ISBN 978-3-11-079176-1.
  9. Varsha Meshram, Khemraj Sahu, Anjali Kosre, Deepali Koreti, **Pramod Kumar Mahish** and Nagendra Kumar Chandrawanshi. **Chapter 2:** Mushroom Biosorbent. In *Biosorbents: Diversity, Bioprocessing and Applications*. 2023. Taylor & Francis Group, LLC, USA ISBN 978-1-03-239974-4
  10. **Pramod Kumar Mahish**, Shailesh Kumar Jadhav. **Chapter 7:** Pretreatment of Aspergillus Mycelium for the Enhancement of Lead Biosorption. In *Biosorbents: Diversity, Bioprocessing and Applications*. 2023. Taylor & Francis Group, LLC, USA ISBN 978-1-03-239974-4
  11. Anjali Kosre, Khemraj Sahu, Varsha Meshram, Deepali Koreti, **Pramod Kumar Mahish** and Nagendra Kumar Chandrawanshi. **Chapter 8:** Pretreatment of Spent mushroom substrate for the enhancement of Biosorption capacity. In *Biosorbents: Diversity, Bioprocessing and Applications*. 2023. Taylor & Francis Group, LLC, USA ISBN 978-1-03-239974-4
  12. Tarun Kumar Patle, Ravishankar Chauhan, Alka Patle, **Pramod Kumar Mahish**. **Chapter 9:** Aqueous Removal of Heavy Metals using Biosorbents. In *Biosorbents: Diversity, Bioprocessing and Applications*. 2023. Taylor & Francis Group, LLC, USA ISBN 978-1-03-239974-4
  13. Garima Madhariya and **Pramod Kumar Mahish**, **Chapter 13** Diversity of Macrophytes in Selected Sites of Durg, Chhattisgarh. In *Role of Applied Sciences in Social Implications Volume C: Life Science*. Editors Mahish, Verma, Patel, Saw and Sahu, PP. 205-217, 2023, ISBN 978-81-959977-1-8.

14. **Pramod Kumar Mahish, Chapter 7** Biochemical and Biotechnological study of some microbes isolated from Rice mill and Oil Industry of Rajnandgaon. In Role of Applied Sciences in Social Implications Volume C: Life Science. Editors Mahish, Verma, Patel, Saw and Sahu, PP 109-130, 2023, ISBN 978-81-959977-1-8.
15. Shweta Singh Chauhan and **Pramod Kumar Mahish, Chapter 6** Endophytic fungal diversity of *Butea monosperma* (Lam.) Taub. (Red flower) and *Butea monosperma* var. *Lutea* (Yellow flower), In Role of Applied Sciences in Social Implications Volume C: Life Science. Editors Mahish, Verma, Patel, Saw and Sahu, PP. 100-108, 2023, ISBN 978-81-959977-1-8.
16. S. K. Jadhav and **Pramod Kumar Mahish, Chapter 3** Morphological Characteristics of some fungi isolated from Industrial Waste Environment, In Role of Applied Sciences in Social Implications Volume C: Life Science. Editors Pramod Kumar Mahish, Dakeshwar Kumar Verma, Suresh Kumar Patel, Hemant Kumar Sao and Kaushal Kumar Sahu, PP 35-49, 2023, ISBN 978-81-959977-1-8.
17. Pramod Kumar Mahish, Yogeshwari Tiwari **Chapter 7** Biodiversity and Physiological Characteristics of some Microbes isolated from Rice mill and Oil Industry of Rajnandgaon. In Role of Applied Sciences in Social Implications Volume B: Earth, Environment & Energy, Ed. Nishad, Patel, Verma, Mahish and Saw, Publisher ProbeCell Press, India, 2023, 79-103. ISBN 978-81-956770-9-2.
18. **Pramod Kumar Mahish** and Anjali Ghritlahare, **Chapter 6**: Scientific Contributions in Biosorption. In Role of Applied Sciences in Social Implications Volume B: Earth, Environment & Energy, Ed. Gokul Nishad, Suresh Kumar Patel, Dakeshwar Kumar Verma, Pramod Kumar Mahish and Hemant Kumar Sao, Publisher ProbeCell Press, India, 2023, PP 67-78. ISBN 978-81-956770-9-2.
19. Madhariya Garima, Chauhan Ravishankar, Diwan Shubha, Chandrawanshi Narendra Kumar, **Pramod Kumar Mahish**. Current Applications of Biomolecules in Biotechnology. In Handbook of Biomolecules: Fundamentals, Properties and Applications. 2022. Elsevier. ISBN 9780323916844
20. Nagendra Kumar Chandrawanshi, Deepali Koreti, Anjali Kosre, **Pramod Kumar Mahish**. Mushroom-Derived Bioactive-Based Nanoemulsion: Current Status and Challenges for Cancer Therapy. In Handbook of Research on Nanoemulsion Applications in Agriculture, Food, Health, and Biomedical Sciences. 2022. IGI Global USA. DOI: 10.4018/978-1-7998-8378-4.ch016
21. **Pramod Kumar Mahish**, Shweta Singh, Ravishankar Chauhan. Bioactive Secondary Metabolites from Endophytic *Phoma* spp. In *Phoma: Diversity, Taxonomy, Bioactivities, and Nanotechnology*. 2022. Springer, Cham. DOI: 10.1007/978-3-030-81218-8\_11
22. Sudakshina Tiwari, Deepali, Anjali Kosre, **Pramod Kumar Mahish**, S.K. Jadhav, Nagendra Kumar Chandrawanshi. Fungal Microbial Fuel Cells, an opportunity for energy sources:

Current Perspective and future challenges. In Energy: Crises, Challenges and Solutions. 2021. Wiley-Blackwell (ISBN: 978-1-119-74144-2)

23. **Pramod Kumar Mahish**, Nagendra Kumar Chandrawanshi, Shriram Kunjam, S. K. Jadhav. Opportunities in the Living Lights: Special reference to Bioluminescent Fungi. In Energy: Crises, Challenges and Solutions. 2021. Wiley-Blackwell (ISBN: 978-1-119-74144-2)
24. Anjali Kosre, Deepali, **Pramod Kumar Mahish**, Nagendra Kumar Chandrawanshi. Current Perspective of Sustainable Utilization of Agro-Waste and Biotransformation of Energy in Mushroom. In Energy: Crises, Challenges and Solutions. 2021. Wiley-Blackwell (ISBN: 978-1-119-74144-2)
25. Tiwari K. L., Jadhav S. K. and **Mahish Pramod Kumar**, 2014. Tolerance of Heavy Metals by *Cunninghamella elegans* TUFC 20022 isolated from industrial waste water of Raipur city, Chhattisgarh, India. *Biotechnology and Traditional Knowledge*, Chapter 28, Page 235-240.

#### PROJECTS (COMPLETED AND ONGOING):

S. No.	Title	Duration	Funding Agency	Status	Cost
1	Chemical and Biological approach for Control of <i>Phomachrysenthemicola</i> : A Pathogen of <i>Chrysanthemum</i> genus ( <i>Asteraceae</i> Family)	1 Yr	Autonomous, Govt. Digvijay College RJN	Completed (2014-15)	0.5 Lakh
2	Determination of Water pollution and Microorganisms from Industrial Effluent of Rajnandgaon (Chhattisgarh), India	2 Yr	UGC, Central Regional Office, Bhopal	Completed (2015-16)	3.30 Lakh
3	Bioactivity of Silver Nano Particle from Rare Yellow Butea Monosperma	1Yr	Autonomous, Govt. Digvijay College RJN	Completed (2020-21)	0.5 Lakh

#### PHD GUIDANCE:

S. No.	Name of Ph.D. Scholar	Registration	Ph.D. Title	Status
1	Ritu Deshlahare	-	-	Six monthly course work
2	Shweta Singh	No.317/DSW/ Ph.D. Cell/2021  23-10-2018	BIOCHEMICAL, MICROBIAL AND GENETIC CORRELATION BETWEEN TWO VARIANTS OF BUTEA MONOSPERMA (COMMON RED AND RARE YELLOW)	Thesis Submitted
3	Garima Madhariya	No.319/DSW/ Ph.D. Cell/2021	CONSTRUCTED WETLAND MODEL USING MACROPHYTES AND IMMOBILIZED MICROORGANISM	Thesis Submitted



23-10-2018

FOR THE IMPROVEMENT OF  
WATER QUALITY

**OTHER ACHIEVEMENTS:**

1. Fellow member – World Researchers Association, Indore, India. WRA/FM/2018/007
2. Life Member – Microbiologists Society, India. MS/IM/679
3. Associate Editor – Indian Journal of Aerobiology (An UGC CARE Journal) ISSN 0971-1546
4. Guest Speaker, Yuvvani and Vigyan Varta Program, All India Radio Raipur.

**LINK OF YOUTUBE**

**CHANNEL:** [https://www.youtube.com/@dr\\_pramodkumarmahish9982/videos](https://www.youtube.com/@dr_pramodkumarmahish9982/videos)

**ACADEMIC WEBPAGE**

Google Scholar -

<https://scholar.google.co.in/citations?user=cmuDpSMAAAAJ&hl=en>

ResearchGate -

<https://www.researchgate.net/profile/Pramod-Mahish-2>

Livedna -

<https://livedna.net/?dna=91.8226>

OrchID -

<https://orcid.org/0000-0002-5343-2347>

**SEMINAR CONFERENCES CHAIRED:**

1. Conference name - 22<sup>nd</sup> National Conference on Aerobiology; Organized by - Indian Aerobiology Society, Narayanrao Waghmare Mahavidyalaya, AkhadaBalapur (MH) and Swami Ramanand Teerath Marathwada University Nanded (MH); Chaired Date - 22/12/22; Chaired Session - Invited Talk, Session 3, 09:30 to 10:30 Hr.

Paper Presented in Seminar/conferences (no.): 16

National : 16

### **FDP/INDUCTION/REFRESHER COURSE ATTENDED:**

(1) **Orientation Course** –Title – “Quality of Higher Education: Learning Process” Period - 4 weeks (3 to 30 June 2015) From Human Resource Development Center, PT. Ravishankar Shukla University Raipur (C.G.), Pass with “A”Grade

(2) **Special Summer School** (Equivalent to one orientation/Refresher Course) – Title – “Ethics in Higher Education: Teaching Learning and Research”, Period – 3 weeks (25<sup>th</sup> May to 09<sup>th</sup> June 2016), From Human Resource Development Center, PT. Ravishankar Shukla University Raipur (C.G.), Pass with “A”Grade

(3) **Two week FDP**(Equivalent to one Refresher Course) – Title –“Learning Advanced E tool for MOOCs Development & Research” Organized by Ramanujan College (University of Delhi) and Motilal Nehru College (University of Delhi) from 1 to 14<sup>th</sup> September 2020.

(4) **Refresher Course** – Title – “ UGC Sponsored Online Multidisciplinary Refresher Course in Life Science : Synthetic Biology” organized by UGC-HRDC, Pt. Ravishankar Shukla University Raipur (C.G.) from 14 to 28<sup>th</sup> December 2020.

(5) **Refresher Course** – Title – “Interdisciplinary Refresher Course (Online) on Environmental Studies and Disaster Management” organized by UGC-HRDC Mizoram University from 30<sup>th</sup> November to 13<sup>th</sup> December 2021.