

FACULTY PROFILE



NAME: Dr. KESHAW RAM AADIL

DESIGNATION: Assistant Professor

DEPARTMENT: Department of Botany

Institution: Govt. Digvijay Autonomous PG College,
Rajandgaon, Chhattisgarh, India

e-mail address:; kaadil7@gmail.com; kraadil@gdcr.ac.in

CONTACT NO.: 9770130757

OVERVIEW:

	Subject/Title for PhD	Year	From (University)
Graduation	B.Sc. Botany, Biotechnology, Chemistry	2008	Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, India
Post-Graduation	M.Sc. Biotechnology	2010	Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, India
Ph.D.	Ph.D. Biotechnology	December, 2016 (Awarded)	Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh, India
SERB National Post Doctorate Fellow (NPDF)	Biotechnology	August 2016-August 2018	National Institute of Technology (NIT) Raipur, Chhattisgarh, India

Field of Research: Botany/Biotechnology:

Value added products from Lignocellulosic waste,
Lignin chemistry,
Lignin as Antioxidant and therapeutic compounds,
Biomaterials, Nanomaterials,
Electrospun Nanofibers scaffolds for tissue engineering application,
Biodegradable plastic/bio composites.

AWARDS/ACHIEVEMENTS:

1. Qualified **CSIR-UGC National Eligibility Test (NET)**- December, 2018, and June, 2019 for Lectureship (LS). Subject: **Life Sciences**.
2. Qualified **Chhattisgarh State Eligibility Test -2017**, (CGSET-2017) for Lectureship. Subject: **Life Sciences**.
3. **Best Oral Presentation Award:**
Silver nanoparticle loaded lignin nanofiber and their antimicrobial activity. National Conference on Recent Advances & Trends in Biotechnology held on 10-12th January 2020 organized by SOS in Biotechnology, Pt. Ravishankar Shukla University, Raipur Chhattisgarh.
4. **Best Poster Presentation Award:**
 - Catalytic Activity of Acacia Lignin stabilized silver Nanoparticles', presented in 17th National Conference on Surfactants, Emulsions and Biocolloids (NATCOSEB-XVII,) organized by School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh. November 4-6, 2015. Poster Presentation.
5. **Young Scientist Award**
 - Awarded as Chhattisgarh Young Scientist for the year 2013 by Chhattisgarh Council of Science and Technology (CCOST), Raipur, Chhattisgarh, India. Paper entitled: 'Synthesis and characterization of lignin-gelatin based biodegradable film'.

COURSES TAUGHT:

PG: Cytology, genetics, and cytogenetic, Reproduction and Embryology of Angiosperm; Plant Physiology; Biotechnology and genetic engineering in microbes; Bioinformatics. Bionanotechnology.

UG: Analytical techniques, Plant tissue culture, Plant Pathology, Environmental Science.

ADDITIONAL RESPONSIBILITIES:

1. Member of IQAC Criteria II
2. Member of Academic bank Credit (ABC) committee
3. Member of Garden Development committee
4. Member of Library and Reading room Development committee
5. Member of Canteen committee
6. Member of Boys hostel committee
7. Reviewer of Journals (Springer/Elsevier/ACS)

PUBLISHED PAPERS:

Total Citation: 1207; h-index= 18; i10 index= 19 (Last update: June 2023)

Google scholar link: <https://scholar.google.co.in/citations?user=uCjzq5Tf4CAC&hl=en>

Scopus link: <https://www.scopus.com/authid/detail.uri?authorId=56107380500>

ORCID ID: 0000-0002-1900-9844

2023

28. **Keshaw R. Aadil**, Akash Nathani, Archana Rajendran, Chandra S. Sharma, Nibedita Lenka, Pratima Gupta (2023). Investigation of human hair keratin based nanofibrous scaffold for skin tissue engineering application. *Drug Delivery and Translational Research*. Under Revision. IF: 5.671 (Springer)
27. **Keshaw Ram Aadil**, Sanu Awasthi, Raj Kumar, Sunil Dutt, Harit Jha (2023). Advanced Functional Nanomaterials of Biopolymers: Structure, Properties and Applications (Book chapter). **Book name:** Functional Materials from Carbon, Inorganic and Organic Sources: Methods and Advances (Elsevier). ISBN. 978-0-323-85788-8. (Corresponding author).

2022

26. Sunil Dutt , Abhishek Kumar Gupta, **Keshaw Ram Aadil**, Naveen Bunekar, Vivek K. Mishra, Raj Kumar, Abhishek Gupta, Abhishek Chaudhary, Ashwani Kumar, Mohit Chawla and Kishan Gugulothu,(2022). Nanomaterials of metal and metal oxides for optical biosensing application. *Metal Oxide Series*, Series Editor, Ghenadii Korotcenkov. Editor Kunal Mondal. *Metal Oxides for Biomedical and Biosensor Applications*. DOI: <https://doi.org/10.1016/B978-0-12-823033-6.00011-9>. Chapter 13; 322-352. Springer Nature.

2021

25. Raj Kumar, **Keshaw Ram Aadil** , Kunal Mondal , Yogendra Kumar Mishra , David Oupicky, Seeram Ramakrishna , Ajeet Kaushik. (2022). Neurodegenerative disorders management: state-of-art and prospects of nanobiotechnology. *Critical Reviews in Biotechnology* (Taylor & Francis) (IF: 9.077) 1-33. <https://doi.org/10.1080/07388551.2021.1993126>. Citation: 17
24. Raj Kumar, Naveen Bunekar, Sunil Dutt, Pulikanti G Reddy, Abhishek K Gupta, **Keshaw R Aadil**, Vivek K Mishra, Shivendra Singh, Chandrani Sarkar (2021). [2D Advanced Functional Nanomaterials for Cancer Therapy](#), Book Name: 2D Advanced Functionalized Inorganic Nanomaterials: Synthesis and Energy Conversion Applications, Publisher: John Wiley & Sons, Publication Date:12 06/2021, Print ISBN: 978-3-527-34677-6; ePDF ISBN: 978-3-527-82395-6. (Book chapter). <https://doi.org/10.1002/9783527823963.ch11>
23. Raj Kumar, Arun Butreddy, Nagavendra Kommineni, Pulikanti Guruprasad Reddy, Naveen Bunekar, Chandrani Sarkar, Sunil Dutt, Vivek K Mishra, **Keshaw Ram Aadil**, Yogendra Kumar Mishra, David Oupicky and Ajeet Kaushik. Lignin: Drug/Gene Delivery and Tissue Engineering Applications. (2021). *International Journal of Nanomedicine* (Dove Press), 16, 2419-2441. (IF: 7.033) doi: [10.2147/IJN.S303462](https://doi.org/10.2147/IJN.S303462)
22. Ankita Chaubey, **Keshaw R. Aadil**, Harit Jha (2021). Synthesis and characterization of lignin-poly lactic acid film as active food packaging material. *Material Technology: Advanced Performance Material*. 36 (10), 585-593. [IF=3.846]. <https://doi.org/10.1080/10667857.2020.1782060>. Citation: 26

2020

21. Raj Kumar, **Keshaw Ram Aadil**, Shivendu Ranjan, Vijay Bhooshan Kumar, (2020). Advances in nanotechnology and nanomaterials based strategies for neural tissue engineering. *Journal of Drug Delivery Science and Technology* (Elsevier) 57:101617. [IF: 5.062]. <https://doi.org/10.1016/j.jddst.2020.101617>. Citation: 76

20. Piyush Parkhey, **Keshaw R. Aadil**, Batul Diwan, J Satya Eswari, Pratima Gupta (2020). Artificial neural network and response surface methodology: a comparative analysis for optimizing rice straw pretreatment and saccharification. *Preparative Biochemistry & Biotechnology* (Taylor & Francis).50(5) 1-13. [IF=2.162]. <https://doi.org/10.1080/10826068.2020.1737816>. Citation: 05

19. Raj Kumar, Abhishek Gupta, Mohit Chawla, **Keshaw Ram Aadil**, Sunil Dutt, Vijay Bhooshan Kumar, Abhishek Chaudhary (2020). *Advances in Nanotechnology based Strategies for Synthesis of Nanoparticles of Lignin*. © Springer Nature Switzerland AG 2019. S. Sharma and A. Kumar (eds.), *Lignin Biosynthesis and Transformation for Industrial Applications*, Springer Series on Polymer and Composite Materials. .Vol.1, 203-229, Publication date: 2020/4/14 Book Chapter. DOI: https://doi.org/10.1007/978-3-030-40663-9_7. Citation: 09

2019

18. **Keshaw R. Aadil**, Akash Nathani, Chandra S. Sharma, Nibedita Lenka, Pratima Gupta (2019). Investigation of poly(vinyl) alcohol-gellan gum based electrospun nanofiber as scaffolds for tissue engineering applications. *Journal of Drug Delivery Science and Technology* (Elsevier). 54: 101276. <https://doi.org/10.1016/j.jddst.2019.101276>. [IF: 5.062]. (Corresponding author) Citation: 36

17. **Keshaw R. Aadil**, Neha Pandey, Solange I. Mussatto, Harit Jha (2019). Green synthesis of silver nanoparticles using acacia lignin, their cytotoxicity, catalytic, metal ion sensing capability and antibacterial activity. *Journal of Environmental Chemical Engineering* (Elsevier). 7 (5): 103296. [IF: 7.968]. <https://doi.org/10.1016/j.jece.2019.103296> (Corresponding author). Citation: 87

16. **Keshaw R Aadil** and Pratima Gupta. (2019). Fabrication and characterization of hair keratin-chitosan based porous scaffolds for biomedical application. Book: REUSE AND RECYCLING OF MATERIALS: NEW HEADWAYS. River Publisher, Denmark, pages: 313-325. ISBN No. 9788770220583; e-ISBN: 9788770220576. [Book Chapter]. Published date: Aug 2019 (Corresponding author).

2018

15. **Keshaw R. Aadil**, Akash Nathani, Chandra S. Sharma, Nibedita Lenka, Pratima Gupta (2018). Fabrication of biocompatible alginate-poly(vinyl alcohol) nanofibers scaffolds for tissue engineering applications. *Material Technology: Advanced Performance Material*. 33(8), 507-512. [IF: 3.846]. Taylor & Francis. Indexing: Scopus (Corresponding author). <https://doi.org/10.1080/10667857.2018.1473234>. Citation: 42.

14. **Keshaw R. Aadil**, Solange I. Mussatto, Harit Jha (2018). Synthesis and characterization of silver nanoparticles loaded lignin-poly(vinyl alcohol) electrospun nanofibers and their antimicrobial activity. *International Journal of Biological Macromolecules*. 120 (Part A), 763-767. [IF: 8.025]. Indexing: Scopus/Pubmed. PMID: 30144548. (Corresponding author). Citation: 109. <https://doi.org/10.1016/j.ijbiomac.2018.08.109>

2017

13. Anand Barapatre, **Keshaw R Aadil**, Harit Jha, (2017). Biodegradation of Malachite Green by the Ligninolytic Fungus *Aspergillus flavus*. *CLEAN-Soil, Air, Water*. Vol. 45(4), 1-12. DOI: 10.1002/clen.201600045. [IF = 1.7]. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim. Citation: 48. <https://doi.org/10.1002/clen.201600045>

2016

12. **Keshaw R. Aadil**, Anand Barapatre, Avtar Singh Meena, Harit Jha (2016). Hydrogen peroxide sensing and cytotoxicity of Acacia lignin stabilized silver nanoparticles. *International Journal of Biological Macromolecules*. 82, 39-47. [IF: 8.025]. Citation: 26. Elsevier. Indexing: Scopus/Pubmed. PMID: 26434518. <https://doi.org/10.1016/j.ijbiomac.2015.09.072>. Citation: 85
11. **Keshaw R Aadil**, Dolly Prajapati, Harit Jha (2016). Improvement of physico-chemical and functional properties of alginate film by Acacia lignin. *Food Packaging and Shelf Life*. 10, 25-33. [IF = 8.749]. Elsevier. Citation: 67. (Corresponding author). <https://doi.org/10.1016/j.fpsl.2016.09.002>
10. **Keshaw R Aadil**, Harit Jha (2016). Physico-chemical properties of lignin-alginate based edible films in the presence of different plasticizers. *Iranian Polymer Journal*. 25 (8), 661-670. [IF = 1.7]. Springer. Citation: 27 <https://doi.org/10.1007/s13726-016-0449-1>
09. **Keshaw R Aadil**, Anand Barapatre, Harit Jha (2016). Synthesis and characterization of Acacia lignin-gelatin film for its possible application in food packaging. *Bioresources and Bioprocessing*. 3(27):1-11. Citation: 56, Springer [IF = 4.578]. <https://doi.org/10.1186/s40643-016-0103-y>
08. **Keshaw R Aadil**, Rajan Jha, Harit Jha (2016). Synthesis, characterization and metal adsorption capacity of Acacia lignin based resin. *Asian Journal of Biological and Life Sciences*. 5(1):40-45.
07. Anand Barapatre, **Keshaw R Aadil**, Harit Jha, (2016). Synergistic antibacterial and antibiofilm activity of silver nanoparticles biosynthesized by *Aspergillus flavus* and *Emericella nidulans*. *Bioresources and Bioprocessing*. 3(8): 1-13. Springer Citation: 31. [IF = 4.578] <https://doi.org/10.1186/s40643-016-0083-y> Citation: 148

2015

06. Anand Barapatre, **Keshaw R Aadil**, Bhupendra N Tiwary, Harit Jha, (2015). In-vitro antioxidant and antidiabetic activity of bio modified Acacia wood lignin. *International Journal of Biological Macromolecules*. 75; 81-89. [IF: 8.025]. Citation: 91. Indexing: Scopus/Pubmed. PMID: 25600985.

2014

05. **Keshaw R Aadil**, A. Barapatre, S. Sahu, H Jha, B.N.Tiwary, (2014). Free radical scavenging activity and reducing power of *Acacia nilotica* wood lignin. *International Journal of Biological Macromolecules*. 67, 220-227. [IF: 8.025]. Citation: 132. Indexing: Scopus/Pubmed. PMID: 24685465.
04. Shyam Sunder Sharma, **Keshaw Aadil**, Madan Singh Negi, Shashi Bhushan Tripathi. (2014). Efficacy of two dominant marker systems, ISSR and TE-AFLP for assessment of genetic diversity of biodiesel species *Pongamia pinnata*. *Current Science*. 106, (11), 1576-1580. [IF: 1.102]. Citation: 14.

2013

03. Harit Jha, Anand Barapatre, Mithlesh Prajapati, **Keshaw Ram Aadil** and Sunil Senapati (2013). Antimicrobial activity of rhizome of selected Curcuma variety. *International Journal of Life Sciences Biotechnology and Pharma Research*, 2, (3) 183-189. Citation:16

02. Anand Barapatre, Sudha Sahu, **Keshaw Aadil** and Harit Jha (2013). Value added products from agrowaste. *Recent Research in Science and Technology*, 5(2): 07-12. Citation: 3 [Proceedings of **National Conference on Biological Sciences in Present Scenario**, Oct 10-11, 2012. Held at Post Graduate Department of Biotechnology and Microbiology, St. Thomas College, Bhilai Chhattisgarh, India].

2012

01. **Keshaw Ram Aadil**, Anand Barapatre, Namrata Rathore, Sandhya Pottam and Harit Jha (2012). Comparative study of *in-vitro* antioxidant and antidiabetic activity of plant extracts of *Acacia grabica*, *Murraya koeingii*, *Catharanthus roseus* and *Rouwolfia serpentine*. *International Journal of Phytomedicine*, 4 (4), 543-551. [IF = 1.23]. Citation: 5

BOOKS & BOOK CHAPTERS

1. Awasthi S, Bhange K, Jha H, **Aadil KR**(2023).Fabrication and characterization of lignin-agar based bioactive porous scaffold for biomedical application. Role of Applied Sciences in Social Implications Volume C: Life Science, Probcell Press. (Corresponding author). Vol. C, 131-146. (**Book Chapter**)
2. Bhange K, **Aadil KR**, Tyagi DS, Chandrakar T, (2023). Antioxidant property of different solvent extracted products of feather protein hydrolysate obtained from keratinolytic bacteria. (2023). Role of Applied Sciences in Social Implications Volume C: Life Science, Probcell Press. Vol. C, 50-61 (**Book Chapter**),
2. **Keshaw Ram Aadil**, Sanu Awasthi, Raj Kumar, Sunil Dutt, Harit Jha (2022). Advanced Functional Nanomaterials of Biopolymers: Structure, Properties and Applications (Book chapter). **Book name:** Functional Materials from Carbon, Inorganic and Organic Sources: Methods and Advances (Elsevier). Submitted. ISBN. 978-0-323-85788-8. In Press
3. Sunil Dutt , Abhishek Kumar Gupta, **Keshaw Ram Aadil** , Naveen Bunekar, Vivek K. Mishra, Raj Kumar, Abhishek Gupta, Abhishek Chaudhary, Ashwani Kumar, Mohit Chawla and Kishan Gugulothu, (2021). **Nanomaterials of metal and metal oxides for optical biosensing application**. Metal Oxide Series, Series Editor, Ghenadii Korotcenkov. Editor: Kunal Mondal. Metal Oxides for Biomedical and Biosensor Applications. DOI: <https://doi.org/10.1016/B978-0-12-823033-6.00011-9>. Publication, Date :03/12/2021Chapter 13; 322-352. Elsevier.
4. Raj Kumar, Naveen Bunekar, Sunil Dutt, Pulikanti G Reddy, Abhishek K Gupta, **Keshaw R Aadil**, Vivek K Mishra, Shivendra Singh, Chandrani Sarkar (2021). **2D Advanced Functional Nanomaterials for Cancer Therapy**, Book Name: 2D Advanced Functionalized Inorganic Nanomaterials: Synthesis and Energy Conversion Applications, Publisher: John Wiley & Sons, Publication Date:12 06/2021, Print ISBN: 978-3-527-34677-6; ePDF ISBN: 978-3-527-82395-6. (Book chapter).
5. **Keshaw R Aadil** and Pratima Gupta. (2019). *Fabrication and characterization of hair keratin-chitosan based porous scaffolds for biomedical application*. Book: REUSE AND

RECYCLING OF MATERIALS: NEW HEADWAYS. River Publisher, Denmark, pages: 313-325. ISBN No. 9788770220583; e-ISBN: 9788770220576. [Book Chapter]. Published date: Aug 2019

6. Raj Kumar, Abhishek Gupta, Mohit Chawla, **Keshaw Ram Aadil**, Sunil Dutt, Vijay Bhooshan Kumar, Abhishek Chaudhary (2020). Advances in Nanotechnology based Strategies for Synthesis of Nanoparticles of Lignin. © Springer Nature Switzerland AG 2019. S. Sharma and A. Kumar (eds.), Lignin Biosynthesis and Transformation for Industrial Applications, Springer Series on Polymer and Composite Materials. .Vol.1, 203-229, Publication date: 2020/4/14 **Book Chapter. DOI: https://doi.org/10.1007/978-3-030-40663-9_7**.

Book:

7. Harit Jha and **Keshaw R Aadil** (2016). *Lignocellulose Based Composites and Biopolymers*. Lambert Academic Publishing. [13/06/2016]. ISBN no. 978-3-659-89712-2. (Book).

PROJECTS (COMPLETED AND ONGOING):

S. No.	Title of the Projects As Principal Investigator (PI)	Cost in Lakh	Funding Agency	Status
1.	Extraction and characterization of <i>Shorea Robusta</i> (Sal) wood lignin for biomedical application	5,00,000.00 (Five lakhs)	Chhattisgarh Council of Science and Technology (CCOST), Raipur, Chhattisgarh	Submitted. July, 2022
2.	Synthesis and characterization of Sal lignin-chitosan based biodegradable film for packaging applications	50,000.00 (Fifty thousands)	Autonomous Cell, Govt. Digvijay College, Rajnandgaon, CG	Project Sanctioned, Ongoing (2023-2024)
3.	Sal Wood Lignin Based Nanocomposites Film as a Smart Packaging Materials	5,00,000.00 (Five lakhs)	State Planning Commission, Raipur, Chhattisgarh,	Under revision 30 Sept, 2022
4.	'Development of biodegradable and biocompatible hair keratin-cellulose acetate based nanofibres scaffold as potential candidate for tissue engineering'	28,93,000/- (Twenty eight lakhs ninety three thousands)	State University Research Excellence (SURE) Scheme, SERB, New Delhi SUR/2022/003839	Ongoing (2023-2026)
5.	Investigation of collagen-poly(hydroxyl butyrate) based aligned conductive nanofibrous	27,56,200/- (Twenty seven lakhs fifty six	Startup Research Grant (SRG) Scheme, SERB, New Delhi, SRG/2023/001872	Accepted for evaluation 01 March 2023

	scaffolds for neural tissue engineering	thousands two hundreds)		
6.	Valorization of lignocellulosic biomass for multipurpose applications	10,00,000/- (Ten lakhs)	Dr. Kothari Fellowship for New Recruited Faculty, University Grant Commission, (UGC), New Delhi	Submitted Oct, 2022
7.	Investigation of lignin for sustainable rechargeable batteries application	52,23,800 (Fifty two lakhs twenty three thousands eight hundreds)	Empowerment and Equity Opportunities for Excellence in Science, (EMEQ), SERB, New Delhi EEQ/2023/000888	Proposal Submitted 14/06/2023
8.	Polysaccharides based electrospun nanofibers for neural tissue engineering'	18,30,323.00.	Science and Engineering Research Board (SERB), India. Under National Post-Doctoral Fellowship scheme.	August 2016-August-2018; two years). Completed.
	Total Cost of all the Project Completed/Ongoing/Submitted	1,47,53,323/-		

PHD AWARDED/ONGOING UNDER GUIDANCE: Nil

**Ph.D. Guide: Subject: Botany and Biotechnology
(M.Sc. Botany/M.Sc. Biotechnology)**

INSTITUTIONS WORKED IN:

- 1. Assistant Professor**, Department of Botany, Govt. Digvijay Autonomous PG College, Rajnandgaon, Chhattisgarh. (04/04/2022 to present).
- 2. Senior Scientist**, (Contract), Virus Research and Diagnostic Lab (VRDL), Department of Microbiology, Govt. Medical College Rajnandgaon, Chhattisgarh, India. **28 /09/2020 to 03/04/2022. (Experience: 1 year 6 months) (Working on COVID-19 Diagnosis: RT-PCR). Front line worker.**
- 3. Assistant Professor** (Contract): Center for Basic Sciences, Pt. Ravi Shankar Shukla University, Raipur, Chhattisgarh, India. 01 September 2018 to 30 April 2020. **(Experience: 1 years 8 months)**

4. **Assistant Professor** (Temporary): Department of Biotechnology, Guru Ghasidas Vishwavidyalaya (Central University), Bilaspur, Chhattisgarh, India, 06-31st August 2018.
5. **SERB National Post-Doctoral Fellow** (PDF/2016/001156/LS), August, 2016-August, 2018 at National Institute of Technology-Raipur, Raipur, Chhattisgarh, India. **(Experience: 2 years)**

Title: “Polysaccharides based electrospun nanofibers for neural tissue engineering”.

Mentor: Dr. (Mrs.) Pratima Gupta, Assistant Professor, Department of Biotechnology, National Institute of Technology-Raipur, Raipur, Chhattisgarh, India. In collaboration with Dr. Chandra Shekar Sharma, Professor, Department of Chemical Technology, IIT Hyderabad and Dr. Lenka Nibedita, Stem Cell Research, NCCS. Pune.

6. **Project Fellow:** UGC-MRP (41-543/2012, SR) entitled: ‘*Application of acacia and rice husk lignin for the synthesis of biopolymers, biofilm and resin*’ under the supervision of Dr. Harit Jha, Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh, India. From: 01/10/2012 to 31/12/2015.

OTHER APPOINTMENTS/ACHIEVEMENTS:

- (a) Asian Polymer Association (APA) ID: L498, Life Member.
- (b) Society of Tissue Engineering and Regenerative medicine, India (STERM). Life Member.

LINK OF YOUTUBE CHANNEL: @Bioklectures:

<https://www.youtube.com/@bioklectures>

https://www.youtube.com/channel/UCJaz3R9h6J1r0Fb_OCSIX6A

PERSONAL WEBPAGE IF ANY: NA

SEMINAR CONFERENCES CHAIRED: Nil

RESOURCE PERSON IN SEMINAR/WORKSHOP/CONFERENCE: Nil

Paper Presented in Seminar/conferences (no.):

National :09

International :07

FDP/INDUCTION/RFRESHER COURSE ATTENDED:

Participated in “Two Weeks Faculty Development Programme on Entrepreneurship” Organized by Chhattisgarh Industrial and Technical Consultancy Centre (CITCON) Raipur in association with Institute of Renewable Energy Technology & Management, Pt. Ravishankar Shukla University Raipur held on 20th Jan -1st Feb 2020.

E-RESOURCES/MOOCs COURSES DEVELOPED: Nil

