

Dr. DEEPAK MAHAPATRA

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WORK EXPERIENCE

- 17+ Years of teaching experience in Engineering Education
- 12+ years of research experience (Pyrolysis of biomass, Structural Mechanics, Agricultural Engineering)
- Presently working as Assistant Professor/ Scientist (Mechanical Engineering) in College of Food Technology, Faculty of Agricultural Engineering, IGKV, Raipur, CG, since September 2014

QUALIFICATIONS

- **PhD** (Mechanical Engineering) from Department of Mechanical Engineering, National Institute of Technology, Raipur completed in February 2020.
- M.E. (Mechanical Design) with 9.17 CPI from CSVT University Bhilai in 2010
- B.E. (Mechanical Engineering) from GEC (now NIT) Raipur with 70.77% marks in 2002
- HSSC Examination from MP Board Bhopal with 78.8% marks in 1997
- HSC Examination from MP Board Bhopal with 74.4% marks in 1995

AWARDS

- Recipient of 9th **Chhattisgarh Young Scientist Award-2011** by Chhattisgarh Council of Science & Technology, Raipur
- Recipient of **College Best Teacher Award 2014-15** by Indira Gandhi Krishi Vishwavidyalaya, Raipur

RESEARCH EXPERIENCE

i) Patents – 01

Patent published in The Patent Office Journal No. 45/2017 dated 10.11.2017 Title: Intermediate Pyrolysis of Medicinal Plants Application No. 201621015726A, Dated: 10.11.2017
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ii) Research Projects (04)

S. No.	Role	Title of project	Funding Agency	Year	Sanctioned Amount	Status
1.	Co-investigat or	Design and development of pyrolysis reactor for extracting oil for Herbal Mosquito repelling Machine	AICTE New Delhi	2011-2014	Rs. 14.40 lakhs	Completed
2.	Co-investigat or	Design and Development of Herbal Mosquito Repelling Machine	State Medicinal Plant Board,	2009-2011	Rs. 3.00 lakhs	Completed

			Raipur			
3.	Co-investigator	Extraction of oil using pyrolysis reactor and its characterization	TEQIP, CSVTU, Bhilai	2019-2021	Rs. 3.00 lakhs	Completed
4.	Co-investigator	Design testing and evaluation of a novel transplanting mechanism in a manual rice transplanter for improved performance	TEQIP, CSVTU, Bhilai	2019-2021	Rs. 2.86 lakhs	Completed

iii) Publications

Journals	
International	07
National	10

Conferences	
International	06
National	06

Book Chapter	
International	01
National	Nil

Journals

2006		
1.	<i>“Importance of Practical Training in Technical Education”</i> published in The Indian Journal of Technical Education, Vol. 29 No 4 Oct-Dec 2006	<i>National</i>
2012		
2.	<i>“A Comparative study on proximate analysis conducted on medicinal plants of Chhattisgarh”</i> published in Research Journal of Chemical Sciences, Vol. 2(9) September 2012	<i>National</i>
2013		
3.	<i>“Fourier Transform Infrared Spectroscopy Analysis of Few Medicinal Plants of Chhattisgarh, India”</i> published in Journal of Advanced Pharmacy Education & Research Vol. 3 Issue 3 pp 196-200, 2013	<i>National</i>
4.	<i>“HPLC of the leaves of medicinal plants Karanj (Pongamia pinnata), Neem (Azadirachta indica) and Babul (Acacia nilotica) of Chhattisgarh, India”</i> published in CSVTU Research Journal, Vol 06, 2013	<i>National</i>
2014		
5.	<i>“Selection of Optimum Farming Strategy Using Multi-Criteria Decision Making Techniques- A Case Study”</i> International Journal of Computer Science and Network, Conference Proceeding- RDFCORDGE – 2014, pp 1-4 May 2014	<i>National</i>
6.	<i>“Design and fabrication of twin screw pyrolyzer for pyrolysis of biomass”</i> International Journal of Computer Science and Network, Conference Proceeding- RDFCORDGE – 2014, pp 57-61 May 2014	<i>National</i>
7.	<i>“Use of Multi-criteria Decision Making Method for the selection of optimum maintenance strategy”</i> Journal of Material Science and Mechanical Engineering	<i>National</i>

	Vol. 1 No.2 pp 89-93 Oct 2014	
8.	“A Comparative Study On Analysis Of Zinc Concentration Conducted On Few Medicinal Plants Of Chhattisgarh” International Journal of Current Research in Chemistry and Pharmaceutical Sciences Volume 1 Issue: 5 2014 Pages:40-43	National
9.	“Selection of Optimum Maintenance Strategy Using Multi-Criteria Decision Making Method” International Journal of Advanced and Innovative Research (2278-7844) / # 103 / Volume 3 Conference Issue 1 2014	National
2015		
10.	“Suitability of B-Spline Collocation Technique to arrive at approximate Solutions for Structural Problems” International Journal of Advanced Engineering Research and Studies Vol.4 No.2 pp 206-208 March 2015	International
11	“Maintenance Strategy And Decision Making –AHP Method” International Journal of Advanced Engineering Research and Studies Vol.4 No.2 pp. 256-258 March 2015	International
2018		
12.	“ A study of stress and deformation behavior of functionally graded Timoshenko beams” International Journal of Advances in Management, Technology and Engineering Sciences Vol. 8, Issue III, pp 1317-1321 March 2018	National
13.	“A critical study of stresses of FG Timoshenko Beams using B-spline Collocation” Materials Today Proceedings, Elsevier, Vol. 5 Issue:14 pp 28142-28148, 2018	International
2019		
14.	“An approximate solution of functionally graded Timoshenko beam using b-spline collocation method” Journal of Solid Mechanics, Vol. 11 No. 2 pp 297-310, 2019	International
15.	“A critical study of bending and thermo-mechanical stresses of a FG Timoshenko beam with various boundary conditions” Materials Today Proceedings, Elsevier , Vol 6 Issue 18 pp 2540-2549, 2019	International
16.	“B-Spline Collocation Based Approximations for structural problems of fourth order” Scientific Bulletin UPB Series: Mechanical, Vol. 81 Issue 4 pp 213-228, 2019	International
2020		
17.	“An Investigation of Stress and Deformation Behavior of Functionally Graded Timoshenko Beams subjected to Thermo-Mechanical Load” Mechanics of Advanced Composites and Structures, Vol 7 No.1 pp 157-176, 2020	International

2022		
18.	<i>Design modification in transplanting mechanism of a manual rice transplanter for improved performance, Accepted for publication in Lecture Notes in Mechanical Engineering, Springer</i>	<i>International</i>
19.	<i>Design & development of multi-crop fibre extracting machine Accepted for publication in Lecture Notes in Mechanical Engineering, Springer</i>	<i>International</i>

Conferences/ Seminars

2011		
1.	<i>“Design & Development of Herbal Mosquito Repelling Machine” 9th Chhattisgarh Young Scientist Congress-2011 held at Bastar University Jadalpur in Feb-March 2011</i>	<i>National</i>
2.	<i>“Design & Development of Herbal Mosquito Repelling Machine” 14th International Asian Chemical Congress, Thailand</i>	<i>International</i>
2012		
3.	<i>“A Comparative study on proximate analysis conducted on medicinal plants of Chhattisgarh” 2nd International Science Congress, Bon Maharaj Engineering College, Vrindavan, Mathura, December 2012</i>	<i>International</i>
2014		
4.	<i>“Design and fabrication of single screw pyrolyzer for pyrolysis of biomass” AICON-2014, held at CSIT Durg in April 2014</i>	<i>National</i>
5.	<i>“Selection of Optimum Maintenance Strategy Using Multi-Criteria Decision Making Method” Recent Advancement in Science and Technology for Sustainable Development of Rural Areas of Chhattisgarh, PARAS-2014, Parthivi College of Engineering and Management, Bhilai in March 2014</i>	<i>National</i>
2015		
6.	<i>“Suitability of B-Spline Collocation Technique to arrive at approximate Solutions for Structural Problems” Innovations in Mecanical Engineering for sustainable development, BITCON-2015 held at BIT Durg in Feb. 2015</i>	<i>National</i>
2018		
7.	<i>“A Study of stress and deformation behavior of functionally graded Timoshenko cantilever beam.” BITCON- 2018, BIT, Durg in February 2018</i>	<i>National</i>
8.	<i>“Approximate solutions to structural problems using B-spline collocation technique” Data Analytics, Machine Learning and Security (NCDAMLS-2018) held at Guru-ghasidas Central University, Bilaspur in February 2018</i>	<i>National</i>
9.	<i>“A critical study of stresses of FG Timoshenko Beams using B-spline Collocation” ICCEMMEMS-2018, LPU, Haryana, March 2018</i>	<i>International</i>
2019		
10.	<i>“A critical study of bending and thermo-mechanical stresses of a FG</i>	<i>International</i>

	<i>Timoshenko beam with various boundary conditions</i> ” ICMPC-2019, GRIET, Hyderabad, March 2019	
2021		
11.	<i>“Design modification in transplanting mechanism of a manual rice transplanter for improved performance”</i> iNaCoMM2021, 5 th International Conference on Machines & Mechanisms, PDPM IIT,DM, Jabalpur, Dec 2021	<i>International</i>
12.	<i>“Design & development of multi-crop fibre extracting machine”</i> iNaCoMM 2021, 5 th International Conference on Machines & Mechanisms, PDPM IIT,DM, Jabalpur, Dec 2021	<i>International</i>

Book Chapter

S. No	Title with page no.	Book title editor & publisher	ISSN/ISBN No.
1.	A Systematic Survey of the Realm of Biomechanics: A Mechanical Engineer’s Perspective Page 1-34	Design, Development and Optimization of Bio-mechatronic Engineering Products 2019 IGI Global book series- Advances in Mechatronics and Mechanical Engineering USA doi: 10.4018/978-1-5225-8235-9.ch001	ISBN 9781522582359 (hardcover) ISBN 9781522582366 (ebook)

FDP/STTP

- Attended a Two week Staff development Program on “**Ansys and CNC Manufacturing**” at JITM, Parlakhemundi, Orissa in July 2008
- Participated in **Summer Faculty Research Fellowship Program-2011 at IIT Delhi** under Quality Improvement Programme for duration of two months in May-July 2011
- Attended a Five day Workshop on “**Biologically Inspired Engineering**” at VNIT, Nagpur in January 2013
- Attended a Five day STTP on “**Experimental and computational fluid mechanics for Engineering and Basic Sciences (ECFMEBS-2016)**” in Nov. 2016
- Attended a three day Short Term Course on “**Applied Mathematics and Mechanics of Composite and Functional Materials**” organized at NIT, Rourkela in December 2016

PERSONAL DETAILS

Father’s Name: Late Shri Narendra Mahapatra
Present Address: C/o Geeta Medical, Shikshak Nagar, Mungeli CG, 495334
Permanent Address: C/o Smt. Madhuri Mahapatra, Bhairam Deo Ward Jagdalpur CG 494001
Marital Status: Married
Children: 02
Blood Group: O^{+ve}
Aadhar Number: 952316692755

Date:
Place:

(Deepak Mahapatra)