

## **CURRICULUM VITAE**



**1. NAME IN FULL:** Mahendra Kumar Mohanty

**2. SEX:** MALE

**3. NATIONALITY:** INDIAN

**4. DATE OF BIRTH:** 20<sup>th</sup> May 1965

**5. MARITAL STATUS:** MARRIED

**6. PRESENT ADDRESS :** **Dr.Mahendra Kumar Mohanty**  
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### **EDUCATIONAL QUALIFICATION:**

<b>Degree / Division</b>	<b>Year Awarded</b>	<b>Institution and Country</b>
High School Certificate (H.S.C) <i>[First Division]</i>	1981	Board of Secondary Education, Cuttack, Orissa
Intermediate Science (I.Sc) <i>[First Division]</i>	1983	BJB College, Utkal University, Orissa
B. Tech (Agril. Engineering & Technology) <i>[First Class with Honours]</i>	1988	Orissa University of Agriculture & Technology, Bhubaneswar, India
M.Tech	1990	Indian Institute of Technology (IIT), Kharagpur, India
Ph.D	2003	Indian Institute of Technology (IIT), Delhi, India

### **09. ACADEMIC HONORS/ACHIEVEMENTS:** ☞

- Recipient of the Indian Council of Agricultural Research (ICAR) Scholarship of Government of India for pursuing the Bachelors degree in Agricultural Engineering and Technology at Orissa University of Agriculture and Technology (OUAT), Bhubaneswar, Orissa (1984-1988).

- Qualified the national level Graduate's Aptitude Test Examination (GATE) conducted by the Ministry of Human Resource and Development, Government of India for pursuing Post Graduate studies in Indian Institute of Technologies (IITs).
- Recipient of visiting fellowship of Department of Science and Technology of Gov. of India in the year 2002.

#### **11. PROFESSIONAL HONOURS RECEIVED: ☞**

- Best Research Scientist for the year 2009-10 of Odisha University of Agriculture and Technology
- Abel Wolman Memorial Award-2012 by Institute of Engineers, Odisha State Centre
- Gauri Shankar Sahu Memorial Award-2012 by Institute of Engineers, Odisha State Centre
- Sadananda Memorial Award-2012 by Institute of Engineers, Odisha State Centre

#### **12. PROFESSIONAL EXPERIENCE (29 years) ☞**

##### **Orissa University of Agriculture & Technology (OUAT), Bhubaneswar:**

- Professor, College of Agricultural engineering and Technology, OUAT , Since April 2011 till date
- Associate Professor, College of Agricultural engineering and Technology, OUAT: November 2003 to March 211
- Research Scholar on study leave to IIT , Delhi: July 2000- Aug 2003
- Assistant Professor(Engg), PDC,College of Agriculture OUAT: 1997-2000
- Training Associate, Krushi Vigyan Kendra, Kalahandi: 1994-1997(3 Years)
- Junior Scientist(Engg), Regional Research Station, Bhawanipatna,OUAT1991-1994
- Training Assistant, Krushi Vigyan Kendra,Bhanjanagar May 1990 to Jan 1991

#### **13. RESEARCH PROJECTs COMPLETED and Area of Interest**

- Development of Laboratory Facility for Bio diesel Production and Testing Centre, (PI) , DST, Gov. of India
- Development of solar hybrid dryer for Kendu leaves drying, (PI)(Science and Technology Dept.,Gov. of Orissa
- Production of Karanja-Biodiesel and its bi-products for Agricultural Application (PI) from DST, Gov. of India
- Use of non Edible oil as engine fuel in SVO mode (PI) Science and Technology Dept , Gov. of Orissa
- Installation, Commissioning & Demonstration of Integrated Biodiesel Plant in the State of Orissa Co-PI) DST, Gov. of India and collaboration with IIT Delhi
- Performance Evaluation of Integrated Biodiesel (Co-PI) , DST, Gov. of India and collaboration with IIT Delhi

#### **Present Research Area.**

- Bioethanol from Lignocellulosic Biomass
- Waste management

#### **14. PhD and M.Tech Students Work: ☞**

- **Five PhDs students and Five M.Tech students have completed the work**

##### **PhDs:**

- S.K.Acharya, Investigation on Utilization of Non edible vegetable oil in a single cylinder Diesel Engine, awarded from Biju Pattanaik University of Technology
- S.R.Mishra, Prospect and Potential of Fatty acid Methyl Esters of Simarouba Glauca oil for use as a Biodiesel, awarded from Utkal University

- N.panigrahi: Performance Analysis of a Compression Ignition Engine Using Biodiesel obtained from different Tree bourn Oils, from Centurian University.
- N.H.S Ray, Studies on Biogas from Kitchen Wastes Production Scrubbing & Analysis, from Centurian University
- Techno-Economic Analysis of Distributed Power Systems for Rural Electrification, Siksha ‘O’ Anusandhan

#### **M.Techs:**

- C.Singh, Life cycle Analysis of Karanja biodiesel
- S.Mishra, Utilization of Non-edible oil cakes for optimal biogas Production
- S.S. Behera: Development of a Solar Operated SRI weeder
- Subodh Tanay Panigrahi: Energy and Exergy Analysis of Fish Drying in Solar Dryer
- Jyoti Lahare, Physical and Thermochemical Characteristics of selected Agricultural Residues and MSW for Bio-fuels Production

#### **15. IMORTANT PAPERS/PUBLICATIONS:**

- S.R. Mishra, **M.K. Mohanty**, N. Panigrahi and A.K. Pattanaik, Impact of Simarouba glauca biodiesel blends as a fuel on the performance and emission analysis in an unmodified DIC engine, Renewable Energy Focus Volume 26, Number September 2018
- Nabnit Panigrahi, **Mahendra Kumar Mohanty**, Sruti Ranjan Mishra & Ramesh Chandra Mohanty, Energy and Exergy Analysis of a Diesel Engine Fuelled with Diesel and Simarouba Biodiesel Blends, J. Inst. Eng. India Ser. C (February 2018) 99(1):9–17
- N.H.S. Ray, **M.K.Mohanty** & R.C.Mohanty Biogas Compression and Storage System for Cooking Application in Rural Households, International Journal of Renewable Energy Research, Vol.6, No.2, 2016.
- A.K.Pradhan, **M.K.Mohanty** & S.K.Kar The Tecno Economic & Environmental Assessments of Grid-connected Photovoltaic Systems in Bhubaneswar, India, International Journal of Environmental Ecological and Mining Engineering, Vol.8, No.4, 2014, 248-254.
- N.H.S.Ray, P.R. Swain, **M.K.Mohanty**, An Investigation on Performance Characteristics of C.I. Engine Using Biogas and Diesel in Duel Fuel Mode, International Journal of Science, Engineering and Technology Research, Vol.3, No.6, 2014, 1716-1723.
- Nabnit Panigrahi, **M. K. Mohanty**, S. K. Acharya, S. R. Mishra, R. C. Mohanty, Experimental Investigation of Karanja Oil as a Fuel for Diesel Engine-Using Shell and Tube Heat, International Journal of Chemical, Materials Science and Engineering Vol.8, No.1, 2014, 91-98.
- Nabnit Panigrahi, Sruti R. Mishra, **Mahendra K Mohanty**, Ramesh C Mohanty Performance Evaluation of CI Engine using Biodiesel from High FFA Polanga oil, Procedia Engineering, 2013.
- S.R. Mishra, **M.K. Mohanty**, S.P. Das and A.K. Pattanaik Optimization of base catalyzed transesterification of Simaroubaglauca oil for biodiesel production, International Journal of Sustainable Energy, 2013
- N Panigrahi & **M.K. Mohanty**, EXPERIMENTAL INVESTIGATION ON THE PERFORMANCE OF NOME FUELLED C.I ENGINES, International Review of Mechanical Engineering (I.R.E.M.E.), 2012, 6:7, 1586-1592.
- N.Panigrahi, **M.K.Mohanty**, & A.K.Pradhan Non-Edible Karanja Biodiesel- A Sustainable Fuel for C.I. Engine, International Journal of Engineering Research and Applications (IJERA), 2012, 2:6, 853-860

- **M.K. Mohanty**, S.R. Mishra, N. Panigrahi Biodiesel Production from Various Tree-Borne Oils, Journal of Biofuel, 3(1), 2012
- Mishra Sruti Ranjan, **Mohanty Mahendra Kumar** and Pattanaik Ajay Kumar Preparation of Biodiesel from Crude oil of Simarouba glauca using CaO as a Solid Base Catalyst, Research Journal of Recent Sciences, 1(9), 2012
- Mishra S.R., **Mohanty M.K.**, Das S.P and Pattanaik A.K. Production of Bio-diesel (Methyl Ester) from Simarouba Glauca Oil, Research Journal of Chemical Sciences, 2(5), 2012.
- Saroj Kumar Acharya; Ranjan Kumar Swain; **Mahendra Kumar Mohanty**; Asit Kumar Mishra; Susila Mahapatra, The performance and emission characteristics of a diesel engine using preheated Kusum oil and Kusum diesel blend, International Journal of Energy Technology and Policy, 2011, 7:6, 503-518
- Acharya, S.K., Swaim, R.K., **Mohanty, M.K.** The use of Rice bran oil as a fuel for small horse power diesel engine, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 2011; 33:1, 80-88
- Acharya, S.K., Swaim, R.K., **Mohanty, M.K.** Performance Investigations of Karanja oil (Methyl Ester) As a fuel in diesel Engine with Exhaust Gas Recirculation, International Journal on Mechanical and Automobile Engineering, 2009; 2:2, 87-95.
- Acharya, S.K., **Mohanty, M.K.** Swaim, R.K., Kusum oil as a fuel for small horse power diesel engine, International journal of Engineering and Technology, 2009; 1:3, 219-223
- **Mohanty, M. K.** "Non conventional energy sources in Indian : Status, Potential and Impact e-Planet A Journal for Environment: 2005 . 3(1) 12-15.
- **Mohanty, M.K & Mohanty, D.K** "Bio-diesel from Non edible oil as an alternate fuel for Diesel Engine" e-Planet, A Journal for Environment: 2(2): 113-115
- **Mohanty, M.K., R.K. Swain & D.K. Das** "Performance Characteristics Evaluation of a small horse power diesel engine fuelled with producer gas from coconut shell" In Proceeding of International Conference on Techno-commercial aspects of de-centralized approach in Waste to Energy March 1-3, 2002 page. 136-139
- **Mohanty, M.K., V.P.S. Sorayan.** "Biogas Purification and storage: problems and prospects" .In Proceeding of International Conference on Techno-commercial aspects of de-centralised approach in Waste to Energy March 1-3, 2002 pages 82-87 India.
- **Mohanty, M.K., Kumar, V.V.P.S. Sorayan. & Naik, S.N** " Experimental Studies on Anaerobic Digestion of Stable waste" Proceeding of International Conference on "Downsizing Technology for Rural Development" 2003 held in RRL, Bhubaneswar. pg 337-345.
- **Mohanty, M.K , V.P.S. Sorayan** " Biogas production and Utilization in Rural India " Proceeding of International Conference on "Downsizing Technology for Rural Development" 2003 held in RRL, Bhubaneswar, page 331-336.
- **M.K. Mohanty & S.K. Mohanty**, Prospects of Biodiesel Production in Orissa, 10<sup>th</sup> Orissa Bigyan Congress, 2006 .
- **Mohanty, M.K**, Prospects of biodiesel Production from Non edible oil seeds in India, National Seminar on Innovation in Non Conventional Energy Sources. March 2006, Bhubaneswar, page 15-19.
- **Mohanty, M.K.** Production of Biodiesel from Jatropha, Souvenir National work shop on 'Biodiesel – A Renewable Green Fuel Jan. 2007. page 31-36.
- A.K. Pradhan, N. Panigrahi, **M.K. Mohanty & S.M. Ali** Efficient Energy Conservation - An Overview, All India Seminar cum Work shop on Energy Conservation The Alternative to Demand Side Management. 2012, 23-24 Jan, The Institute of Engineers, Odisha State Chapter.

## **16. PROFESSIONAL AFFILIATIONS**

- Fellow Member, Institute of Engineers, India
- Life Member, Indian Society of Agricultural Engineers (ISAE)
- Life Member Bio-Energy Society of India
- Life Member, IIT,Kharagpur Alumni Association.
- Life Member, IIT,DELHI Alumni Association.
- Life Member,CAET,OUAT Alumni Association.
- Life Member of OUAT Teachers Association

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