

**Dr. Meena Khwairakpam****Assistant Professor**

Centre for Rural Technology  
Indian Institute of Technology Guwahati  
Guwahati-781039

**Email :** [meena.kh@iitg.ac.in](mailto:meena.kh@iitg.ac.in)

meena.kh@gmail.com

**Specialization**

Environmental Engineering

**Educational Qualifications**

**Ph.D.** (2009) Civil Engineering

Indian Institute of Technology Roorkee (IITR), India

**M.Tech.** (2004) Civil Engineering

Malaviya National Institute of Technology (MNIT), Jaipur, India

**Bachelor of Engineering** (2001) Civil Engineering

SJCE Mysore, India

**Research Interests**

- Solid waste management
- Mechanical composting and vermicomposting
- Analysis of solid wastes
- Biological Waste treatment
- Integrated Waste Management
- Water Supply and Sanitation

**Professional Experience**

| <b>Period</b>                                    | <b>Position</b>  | <b>Courses taught</b>   |
|--|--|---|
| From 9 <sup>th</sup><br>March 2017-<br>till date | Assistant Professor, Centre for Rural<br>Technology, IITG          | Rural Water Supply and Sanitation,<br>Water Resources Management, Rural<br>Energy   |
| From Dec<br>2013- March<br>2017                  | Assistant Professor, National Institute of<br>Technology Meghalaya | Environmental Sciences,<br>Environmental Engineering I & II,<br>Solid and hazardous waste<br>management, Civil Engineering<br>Materials |

|                         |   |   |
|-------------------------|---|---|
| From July 2008-Dec 2013 | Assistant Professor, Malaviya National Institute of Technology, Jaipur                  | Engineering Graphics, Environmental Sciences, Solid Waste Management, Air and Noise Pollution |
| June 2004- June 2008    | Graduate and Post- Graduate Teaching Assistant, Indian Institute of Technology, Roorkee | CPM and PERT, Solid Waste Management  |
| June 2002- May 2004     | Graduate Teaching Assistant, Malaviya National Institute of Technology, Jaipur          | Engineering Graphics  |

### Administrative Responsibilities (12)

12. **HOD, Department of Civil Engineering, NIT Meghalaya** from 6<sup>th</sup> May 2015-1<sup>st</sup> June 2016
11. **Chairperson**, Internal complaints Committee (Women's Cell), NIT Meghalaya, 2015-2016.
10. **Warden** (Girls Hostel) NIT Meghalaya Girls Hostel from 2014-2016
9. **Faculty- in-charge**, (Environmental Engg. Laboratory), Department of Civil Engineering, NIT Meghalaya from 2014-1<sup>st</sup> June 2016.
8. **Co-ordinator**, B.Tech Admission, NIT Meghalaya for the academic year 2014-15.
7. **Member**, Faculty Advisory Committee, NIT Meghalaya for the academic year 2014-15.
6. **Member**, Convocation Gown Committee, NIT Meghalaya, 2014.
5. **Convener**, Arrangement of Robes Committee (Convocation), NIT Meghalaya, 2014.
3. **Member**, Departmental Research Committee (DRC), Academic Programme Committee (APC), Academic Probation Committee, NIT Meghalaya for the academic year 2014-15.
4. **Member**, Hostel Committee, NIT Meghalaya, 2014.
3. **Member, Mess Advisory Committee**, MNIT Jaipur from July 2012-Dec 2013.
2. **Warden** (Girls Hostel) MNIT Jaipur from July 2012 -Dec 2013
1. **Faculty- in-charge**, (Environmental Engg. Laboratory), Department of Civil Engineering, MNIT Jaipur from 2012 -Dec 2013.

### Publications

#### *International Journals (25)*

25. Saha, B., Sathyan, A., Kalamdhad, A., **Khwairakpam, M.**, (2019). Anaerobic biodegradability test for *Lantana camara* to optimize the appropriate food to microorganism (F/M) ratio. DOI: 10.1080/09593330.2019.1604810.
24. Maheshwari, S., Jethoo, A.S., Vishvakarma, V.K., **Khwairakpam M**, Kriplani, P. (2019). Biodegradation of Sludge Produced from Common Effluent Treatment Plant (CETP) Using Drum Composting Technique *Nature Environment and Pollution Technology*. 18(1):231-236.

23. Saha B, Sathyan A, Mazumder P, Choudhury S P, Kalamdhad A S, **Khwairakpam M**, Mishra U. (2018). Biochemical methane potential (BMP) test for *Ageratum conyzoides* to optimize ideal food to microorganism (F/M) ratio. *Journal of Environmental Chemical Engineering* 6: 5135-5140. (cited by 1)
22. Hazarika J, Ghosh U, Kalamdhad AS, **Khwairakpam M**, Singh J. (2018). Fractionation and reduction in bioavailability of toxic heavy metals during rotary drum composting of paper mill sludge. *Nature Environment and Pollution Technology*. 17(3):999-1004.
21. Hazarika, J., Gosh, U., Kalamdhad, A.S., **Khwairakpam, M.**, Singh J., (2017) Transformation of elemental toxic metals into immobile fractions in paper mill sludge through rotary drum composting. *Ecological Engineering*. 101:185-192. (cited by 9)
20. Sonowal, P., Dhamodharan, K., **Khwairkpm, M.**, Kalamdhad, A. S., (2013). Feasibility of vermicomposting of dewatered sludge using *perionyx excavatus* earthworm. *European Journal of Environmental Sciences*, 3(1), 17-26.
19. Kalamdhad, A.S., Ali, M., Singh, Y.K., **Khwairakpam, M.**, Kazmi, A.A., (2009) Rotary drum composting of vegetable waste and tree leaves. *Bioresource Technology*, 100(24), 6442-6450. (cited by 96)
18. Ghosh U, Hazarika J, Kalamdhad AS, **Khwairakpam M**, Singh J (2018). Speciation of trace metals (Cu, Zn, Ni, Fe and Mn) during rotary drum composting of paper mill sludge. *G- Journal of Environmental Science and Technology* 5(1): 125-130.
17. Hazarika J, **Khwairakpam M.**, (2018). Evaluation of biodegradation feasibility through rotary drum composting recalcitrant primary paper mill sludge. *Waste Management*.76:275-283.
16. Saha. B., Devi, C., **Khwairakpam, M.**, Kalamdhad, A.S., (2017). Vermicomposting and anaerobic digestion – viable alternative options for terrestrial weed management – a review. *Biotechnology Reports*. 17, 70-76. (cited by 2)
15. Hazarika, J., Gosh, U., Kalamdhad, A.S., **Khwairakpam, M.**, (2017). Transformation of elemental toxic metals into immobile fractions in paper mill sludge through rotary drum composting. *Ecological Engineering*. 101, 185-192. (cited by 14)
14. Varma, V. S., **Khwairakpam, M.**, Kalamdhad, A. S., (2016). Feasibility of *Eisenia fetida*, *Eudrilus eugeniae* and *Perionyx excavatus* in vermicomposting of water hyacinth. *Ecological Engineering*. 94, 127-235. (cited by 4)
13. Sonowal, P., **Khwairakpam, M.**, Kalamdhad, A. S., (2015). Vermicomposting of Dewatered Sludge from Pulp and Paper mill. *Int. J. of Environment and Waste Management*, 15(1), 24-38.
12. Sonowal, P., **Khwairakpam, M.**, Kalamdhad, A. S., (2014). Vermicomposting of Solid Pulp and Paper mill sludge (SPPMS) using *Eudrilus eugeniae* earthworm. *Int. J. of Environmental Science*, 5(3), 502-514. (cited by 6)

11. Sonowal, P., **Khwairakpam, M.**, Kalamdhad, A.S., (2014). Stability analysis of dewatered sludge of pulp and paper mill during vermicomposting. *Waste and Biomass Valorization* 5(1), 19-26. **(cited by 9)**
10. Singh, S., **Khwairakpam, M.**, Tripathi, C.N., (2012). A comparative study between composting and vermicomposting for recycling food wastes. *International Journal of Environment and Waste Management (IJEWM)*, 12(3), 231-142. **(cited by 2)**
9. Dhal, G.S., Singh, W.R., **Khwairakpam, M.**, Kalamdhad, A.S., (2012). Composting of water hyacinth using saw dust/rice straw as a bulking agent. *International Journal of Environmental Sciences*, 2(3), 1223-1238. **(cited by 2)**
8. Kalamdhad, A.S., **Khwairakpam, M.**, Kazmi, A.A., (2012). Drum composting of municipal solid waste (MSW). *Environmental Technology*, 33(3), 299-306. **(cited by 5)**
7. **Khwairakpam M.**, Kalamdhad, A.S., (2011). Vermicomposting of vegetable wastes amended with cattle manure. *Research Journal of Chemical Sciences (RJCS)*, 1(8), 1-7. **(cited by 16)**
6. Kalamdhad, A.S., Ali, M., **Khwairakpam, M.**, (2010) Thermal analysis of rotary drum composting of different waste combinations. *International journal of Environmental Science and Engineering Research (IJESER)*, 1(1), 38-44.
5. Shrial, S., **Khwairakpam, M.**, (2010) Effect of C/N ratio on vermicomposting of vegetable waste. *Dynamic Soil & Dynamic Plants* 4(1), 89-95. **(cited by 3)**
4. **Khwairakpam, M.**, Bhargava, R., (2010) Vermicomposting of cattle manure using Mono and Polycultures of three earthworm species. *Dynamic Soil & Dynamic Plants* 4(1), 123-126. **(cited by 2)**
3. Kalamdhad, A.S., Ali, M., **Khwairakpam, M.**, Kazmi, A.A., (2009) Organic matter transformation during rotary drum composting. *Dynamic Soil & Dynamic Plants*, 3(1), 93-98. **(cited by 4)**
2. **Khwairakpam, M.**, Bhargava, R., (2009) Bioconversion of filter mud using vermicomposting employing two exotic and one local earthworm species. *Bioresource Technology*, 100(23), 5846-5852. **(cited by 105)**
1. **Khwairakpam, M.**, Bhargava, R., (2009) Vermitechnology for sewage sludge recycling. *Journal of Hazardous materials*, 161(2/3), 948-954. **(cited by 233)**

#### ***International Conferences Proceedings (15)***

15. Hazarika J, Srivastava A N, **Khwairakpam M**, Kalamdhad AS. (2018) Transformation of an industrial and municipal waste composite into a high value soil ameliorator. "Research Conclave- 2018"- 8-11 March, 2018, IIT Guwahati.
14. Hazarika J, Srivastava AN, **Khwairakpam M**, Kalamdhad AS. (2018) Amendment- a potential way to biodegrade recalcitrant carbon-rich substrates. "Recycle- 2018

International Conference on Waste Management held at IIT Guwahati from 22<sup>nd</sup> to 24<sup>th</sup> February, 2018”.

13. Saha B., Kauser H., **Khwairakpam M**, Kalamdhad AS. (2018) Anaerobic digestion and composting – are the alternative options for terrestrial weed management – a review. “Recycle -2018”-*International Conference on Waste Management*. 22-24 Feb,2018, IIT Guwahati.
12. Hazarika J, **Khwairakpam M**, Kalamdhad AS. (2017) Vermiconversion as a technology for mitigating industrial sludge waste laden with toxic metals from virgin paper mills. “Research Conclave- 2017”-. 16-19 March, 2017, IIT Guwahati.
11. Hazarika J, Lyngdoh S, **Khwairakpam M**, Kalamdhad AS. (2016) “Biodegradation of recalcitrant Pulp and Paper Mill Sludge through rotary drum composting” ICCB-2016 *International Conference on current trends in Biotechnology*. XIII BRSI Annual Convention. 8<sup>th</sup> to 10<sup>th</sup> December, 2016, VIT University, Vellore.
10. Hazarika J, Ghosh U, **Khwairakpam M**, Kalamdhad AS. (2016) Rotary Drum Composting of primary paper mill sludge (PPMS). “Recycle- 2016”-*International Conference on Waste Management*. 1-2 April,2016, IIT Guwahati.
9. Hazarika J, **Khwairakpam M** and Kalamdhad AS. (2015) “Composting of primary paper mill sludge (PPMS)” *Symposium on Management and Procurement of Integrated Waste Management System*. Under TEQIP: A GOI- MHRD Initiative 2014-1. 6-7th February 2015, IIT Guwahati.
8. **Khwairakpam, M.** and Bharagava, R., (2010), “Vermifiltration- an option for decentralized waste treatment” Proc. of *International conference on “Internatioinal Congress of Environmental Researcht” ICER-10*, 16- 18 Sept, Mauritius.
7. **Khwairakpam, M.** and Bharagava, R., (2008), “Sewage sludge management using Vermitechnology” Proc. of *International conference on “Waste Engineering and Management” ICWEM 2008*, 28- 30 May, Hong Kong, China. (Published)
6. **Khwairakpam, M.** and Bhargava, R. (2008), “Vermicomposting of cattle manure using three earthworm species *Eisenia fetida*, *Eudrilus eugeniae*, *Perionyx excavatus*” *International Congress of Environmental Research* on 18-20 December 2008, , to be held BITS – Pilani, Goa Campus, Zuari Nagar , Goa, India. (Published)
5. **Khwairakpam, M.**, Varaprasad, N.V.V.S.R. and Bharagava, R., (2006), “Feasibility studies for Vermicomposting of Pulp & Paper mill sludge & effluent with Cow dung’ Proc. of *International Interdisciplinary conference on “Sustainable technologies for Environmental Protection” ICSTEP 2006*, held at CIT Coimbatore, India. (Published)
4. **Khwairakpam, M.** and Bhargava, R., (2007), “Feasibility studies of consortium of earthworms for Vermicomposting” Proc. of *International Conference on sustainable solid waste management*, 5-7 September 2007, Chennai, India. (Published)
3. Dewi, I.P.R., **Khwairakpam, M.** and Bhargava, R., (2007), “Vermicomposting of Bagasse from Sugar Industry Mixed with Food Wastes” Proc. of *International*

*Conference on Civil Engineering in the New Millennium: Opportunities and Challenges, CNeM 2007*, 11-14 January 2007, West Bengal, India. (Published)

2. **Khwairakpam, M.**, Brighu, U. and Bhargava, R., (2007), “Financial aspect of Solid Waste Management in Jaipur city-A Case study” Proc. of *International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges, CNeM 2007*, 11-14 January 2007, West Bengal, India. (Published)
1. **Khwairakpam, M.** and Bhargava, R., (2007), “Treatment of filter mud using Vermitechnology employing pure and mixed cultures of two exotic and one local earthworm species” Proc. of *International Congress of Environmental Research*, 28-30 December 2007, Bhopal, India. (Published)

#### ***National Conferences Proceedings (14)***

14. Kauser, H., Pal, S., **Khwairakpam, M.**, Kalamdhad, A.S., (2019) “Aerobic In-vessel composting of an invasive weed, *Mikania micrantha kunth*” first prize for oral presentation on Research Conclave’19, held on March 14-17 at Indian Institute of Technology, Guwahati.
13. Mazumder, P., Akhil, PM., Kalamdhad, A.S., **Khwairakpam, M.**, (2019) “Soil quality improvement post compost application” poster presentation at Research Conclave’19, held on March 14-17 at Indian Institute of Technology, Guwahati
12. Yunus, P.M., **Khwairakpam, M.**, Kalamdhad, A.S., (2019) “Anaerobic co-digestion of terrestrial weeds (*Parthenium hysterophorus and Lantana camara*)” Best poster award for poster presentation on “Research Conclave’19, held on March 14-17 at Indian Institute of Technology, Guwahati
11. Saha, B., **Khwairakpam, M.**, Kalamdhad A.S., (2019). “Enhance the methane production from *Lantana camara* with various thermal pretreatment.” Poster presentation on Research Conclave’19, held on March 14-17 IIT Guwahati, India.
10. Saha, B., **Khwairakpam, M.**, Kalamdhad A.S., (2019). “Electrohydrolysis pretreatment on *Lantana camara* to enhance the biogas production.” Research Conclave’19, held on March 14-17, IIT Guwahati, India.
9. Kauser, H., Pal, S., **Khwairakpam, M.**, Kalamdhad, A.S., (2019) “Rotary Drum Composting of *Mikania micrantha kunth*, an invasive terrestrial weed” second prize for Poster presentation on “National Environmental Conference 2019” held on 31<sup>st</sup> January - 2<sup>nd</sup> February at Indian Institute of Technology, Bombay.
8. Mazumder, P., Akhil, PM., Kalamdhad, A.S., **Khwairakpam, M.**, (2019) “Meliorating soil quality by the application of water hyacinth compost” poster presentation at National Environmental Conference 2019 held on 31<sup>st</sup> January - 2<sup>nd</sup> February at Indian Institute of Technology, Bombay

7. Kauser, H., **Khwairakpam, M.**, Kalamdhad, A.S., (2018) “A review on management of terrestrial weeds and its utilization for agricultural purpose” poster presentation on “Research Conclave’ 18, held on March 8-11 at Indian Institute of Technology, Guwahati.
6. Hazarika, J., Lyngdoh, S., **Khwairakpam, M.**, Kalamdhad, A.S., (2017) “Vermiconversion of recalcitrant primary paper mill sludge by epigeic species *Eisenia fetida*” Proc. Of “*Integrated Solid Waste Management Practice in Developing Countries-2017*” held on April 11-12 at CSIR-NEERI, Nagpur.
5. Devi, C. and **Khwairakpam, M.**,”Earthworms for the management of terrestrial weed *Saccharum spontaneum*”. Proc. Of “*Integrated Solid Waste Management Practice in Developing Countries-2017*” held on April 11-12 at CSIR-NEERI, Nagpur.
4. **Khwairakpam, M.** and Bhargava, R., (2008), “Treatment of Municipal sewage using Vermifiltration” Proc. of “*National conference on hydraulics, water resources and environment*” *HYDRO 2008*, 15-16 Dec, Jaipur, India. (Published)
3. **Khwairakpam, M.**, Rajpal, A and Bhargava, R., (2008), “Vermicomposting of organic wastes using mono and polycultures of three different earthworm species” Proc. of “*Sixteenth National Symposium on Environment*” *NSE-16*, 16-18 July, Hissar, India (Published)
2. **Khwairakpam, M.**, Nangkhlan, M., Bhargava, R. and Pruthi, V., (2006), “Vermicomposting of filter mud using *Eisenia fetida*” *National conference on Environmental Technology – biological Perspectives Issues and Challenges*. University of Bombay Feb 9<sup>th</sup> -10<sup>th</sup> 2006.
1. Dixit,S.M., **Khwairakpam, M** and Bharagava , R., (2006), “Hospital Waste Management –A case Study” *National conference on Environmental Solution for Sustainable Development* held at Department of Civil Engg. Alagppa Chittur College of Engineering and Technology Karaikudi. Tamil Nadu, Feb 23<sup>rd</sup> and 24<sup>th</sup> 2006.

#### **Short Term Courses/Symposium/Workshop Attended (7)**

7. **Khwairakpam, M.**, attended short tern course on “Air Quality and Climate Change: Control and Modelling” conducted under TEQUIP sponsored by the MHRD held on April4-8, 2016, IIT Guwahati.
6. Attended a workshop on “Accreditation and Transformation of Technical Education” at NIT Meghalaya from Jan 22-27, 2016.
5. Hazarika J, **Khwairakpam M** and Kalamdhad AS. “Composting of primary paper mill sludge (PPMS)” Symposium on Management and Procurement of Integrated Waste Management System. Under TEQIP: A GOI-MHRD Initiative 2014-1. 6-7<sup>th</sup> February 2015, IIT Guwahati.
4. Attended a workshop on Life Cycle Assessment (LCA) held on 25th April, 2009 at IIT Delhi.

3. Participated in 'Induction Training' at Malaviya National Institute of Technology Jaipur, from 20<sup>th</sup> to 22<sup>nd</sup> July 2008 organized by EQUATE, New Delhi.
2. Participated in Umang'07, a National level workshop on Rural Technologies held on March 18, 2007 organized by Department of Management studies, Indian Institute of Technology Roorkee.
1. Participated in 'Pedagogy Training' at Malaviya National Institute of Technology Jaipur, from 6<sup>th</sup> to 11<sup>th</sup> October 2008 organized by Continuing Education, MNIT Jaipur in association with EQUATE, New Delhi.

### **Honors & Awards (3)**

3. G.M. Nawathe Puraskar for best paper in the National conference on hydraulics, water resources and environment HYDRO 2008, 15-16 Dec, Jaipur, India.
2. CSIR financial assistance for paper presentation in International Conference at Hong Kong.
1. *GATE* (Graduate Aptitude Test of Engineering) Scholarship by the Government of India, April 2001- January 2003

### **Invited Talks (12)**

12. Keynote lecture on the topic "Technology options for Composting of organic waste in Rural areas" at the National Conference on "Biotechnology and Environment for sustainable development (BioESD2019)" at B.Lal Institute of Biotechnology, Jaipur held on 29<sup>th</sup> to 30<sup>th</sup> March 2019.
11. Expert lecture on the topic "Composting and Vermicomposting of Biological Waste with Special Emphasis on Phumdi Biomass of Loktak Lake, Manipur" for TEQIP-III sponsored one-day expert talk on "Advanced techniques on composting of floating mass (phumdi) of Loktak lake, Manipur" at NIT Manipur on 4<sup>th</sup> Jan 2019.
10. Invited speaker on the topic "Methods and Techniques of handling biodegradable waste" for a workshop at NIRD, Guwahati, Assam on 24<sup>th</sup> April 2018.
9. Invited speaker on the topic "Vermicomposting of Biodegradable Waste" for a workshop at PG College, Chhindwara (M.P) near Nagpur city during 19-21 Dec. 2017.
8. Invited speaker on the topic "Solid Waste Management and Processing" for the "Swachhta Pukwara" program at ICAR research complex for NEH region on 19<sup>th</sup> May'2016.
7. Invited speaker for the TEQIP-II short term course on "Biological Treatment of Solid Waste" under the auspices of the Knowledge Incubation Cell (KIC), Centre for Educational Technology (CET), Indian Institute of Technology Guwahati, Guwahati, during February 8-10, 2016.



6. Invited speaker for the Symposium on “Management and Procurement of Integrated Waste Management System” 6-7 February 2015 at Department of Civil Engineering, Indian Institute of Technology Guwahati, India.
5. Expert lecture on “Solid Waste Management-Challenges and Opportunities” 12-14 January 2015 at Department of Civil Engineering, Indian Institute of Technology Guwahati, India.
4. Expert lecture on “Management of Solid Waste” 22-26 October 2012 at Department of Chemical Engineering, Malaviya National Institute of Technology Jaipur, India.
3. Expert lecture on “Integrated Solid Waste Management” 9-13 January 2012 at Department of Civil Engineering, Indian Institute of Technology Guwahati, India.
2. Delivered lecture in the Short Term Course on “Solid Waste Management” held from January 12-16<sup>th</sup> 2009 on the topics of “Characteristics, composition and collection” and “Vermi-composting of waste” at Indian Institute of Technology Roorkee. Judged “Paper presentation” at Vivekananda Institute of Technology (VIT) Jaipur.
1. Delivered expert lecture on Solid waste management at Govt. Engineering College Bharatpur on 9<sup>th</sup> Dec’2009.

#### **Conferences/ Invited Talks/Workshops/Short Term Courses Organized (9)**

9. Coordinator for TEQIP-STC on “Tailoring technologies for Rural Sector: Development and Dissemination” from 29<sup>th</sup> Oct-2<sup>nd</sup> Nov’2018 at Centre for Rural Technology, Indian Institute of Technology Guwahati, India.
8. Organized an expert lecture by Dr. Z. Changsan, Scientist ‘D’, Central Pollution Control Board (MoEF, GOI), North East Zonal officer in the department of Civil Engineering, NIT Meghalaya on the topic “Water quality Standards” on 6<sup>th</sup> May 2016.
7. Organized a workshop on “Identification of Challenging Need based problems related to rural economy” sponsored by RuTAG-NE at NIT Meghalaya on 25<sup>th</sup> February 2014.
6. Organized an expert lecture by Mr. Hermann Koller, the Managing Director of ISWA, Department of Biotechnology, School of Engineering, University of Borås, Sweden in the department of Civil Engineering, MNIT Jaipur on the topic “Renewable energy in Swedish perspective” on 10<sup>th</sup> Jan’2013.
5. Course Coordinator on “Solid Waste Management” 24-26 August 2012 for RUIDP Engineers at Department of Civil Engineering, Malaviya National Institute of Technology (MNIT) Jaipur, India.
4. Co-convenor for National Conference on “Water Quality Management” 20-22 December 2012 at Malaviya National Institute of Technology (MNIT) Jaipur, India.
3. A special lecture by Prof Subashisa Dutta, Water Resource Engineering, Civil Engineering Department, Indian Institute of Technology, Guwahati in the department of

Civil Engineering, MNIT Jaipur on the topic “Fluval disaster by Brahmaputra Basin” on 23<sup>rd</sup> Nov’ 2012

2. Organized an expert lecture by Prof Mohammad Taherzadeh, Department of Biotechnology, School of Engineering, University of Boras, Sweden in the department of Civil Engineering, MNIT Jaipur on the topic “Renewable energy in Swedish perspective” on 27<sup>th</sup> Nov’ 2012.
1. Organized an expert lecture by Dr. Sookoo Lee, Professor, Seoul National University of Technology, South Korea, in the Civil Engineering Department on the topic “Sludge Treatment” on 18<sup>th</sup> Feb’2010.

### **Other Activities (3)**

3. Organized an educational tour to IIT Guwahati in November 2014 for the 2<sup>nd</sup> year students of B. Tech Civil Engineering (NIT Meghalaya).
2. Organized an educational tour to “Central Road & Research Institute (CRRRI) Delhi”, from 8<sup>th</sup> -9<sup>th</sup> April 2010 for the 1<sup>st</sup> year (Transportation Engg.) students of M. Tech Civil Engineering (MNIT Jaipur).
1. Organized an educational tour to Tehri Hydro-electrical Project, IIT Roorkee and IIRS Dehradun in March 2009 for the 2<sup>nd</sup> year students of B. Tech Civil Engineering (MNIT Jaipur).

### **Technical Reports (1)**

1. Project report on “Vermi-Technology for Waste Disposal in Rural Areas of Uttarakhand”. Uttarakhand State Council for Science & Technology (UCOST), Dehradun, Government of India.

### **Book chapter (1)**

1. Kalamdhad, A.S., Singh, Y.K., Ali, M., **Khwairakpam, M.**, Kazmi, A.A., (2009) High rate composting of institutional organic wastes. In Shukla, J.P. (ed): New technologies for rural development having potential of commercialization. Allied publishers, India, pp. 169-175.

### **Membership of Professional Societies (2)**

2. Member, The Institution of Engineers (India) (M-151901-2)
1. Life Member, Indian Desalination Association (InDA- LM-280)

### Research/Consultancy Projects

| Title of the Project   | Duration of the Project | Sponsoring Agency   | Value of the Project Rs. (in lakhs) | Other Investigators/ Co-Investigators   |
|--|-------------------------|---|-------------------------------------|---|
| Biodegradation of pulp and paper mill waste using different composting techniques              | 3 Years<br>(2015-2018)  | Department of Science and Technology (SERB)<br>Ministry of Science and Technology,<br>Government of India | 32.93 Lakhs                         | Co-PI: Dr. Ajay Kalamdhad, Associate Professor, Indian Institute of Technology Guwahati<br><br>Dr. C. Marthong, Assistant Professor, Department of Civil Engineering, NIT Meghalaya |
| Terrestrial weed management using different composting techniques                              | 2 years<br>(2017-1019)  | Institute Grant   | 5 Lakhs                             | NIL   |
| Composting/Vermicomposting of <i>Mikania micrantha kunth</i> and its effect on soil properties | 3 years<br>(2019-2021)  | Department of Science and Technology (SERB)<br>Ministry of Science and Technology,                        | 43.98 Lakhs                         | NIL   |

|  |  |                     |  |  |
|--|--|---------------------|--|--|
|  |  | Government of India |  |  |
|--|--|---------------------|--|--|

### Project Guidance

#### Ph.D. Guidance - Ongoing: 04, Submitted: 01

| Sl. No | Name of the Student | Month and Year of Joining & Completing | Co-Supervisors (if any) | Title   |
|--------|---------------------|--|-------------------------|---|
| 1.     | Jayeeta Hazarika    | Jan 2014<br>(Submitted 2019)           | Nil                     | Composting of Primary Paper Mill Sludge using Rotary Drum and Vermitechnology |
| 2.     | Chaichi Devi        | July 2015                              | Dr. Atanu Singha        | Vermicomposting of weeds in cold hilly region (Shillong)                      |
| 3.     | Heena Kauser        | July 2017                              | Nil                     | Composting/Vermicomposting of <i>Mikania micrantha kunth</i>                  |
| 4.     | Biswanath Saha      | July 2016                              | Dr. Ajay Kalamdhad      | Effect of pretreatment on anaerobic digestion of terrestrial weeds            |
| 5.     | Payal Mazumdar      | July 2016                              | Dr. Ajay Kalamdhad      | Not Decided   |
| 6.     | Arun Sathyan        | 2018                                   | Dr. Ajay Kalamdhad      | Not Decided   |

#### M. Tech. Project Guidance – Ongoing-03, Guided: 06

| Sl. No. | Name of Student | Year | Title of the Dissertation   |
|---------|-----------------|------|---|
| 1.      | Shilpa Shrimal  | 2009 | Effect of C/N ratio on vermicomposting of kitchen waste                                   |
| 2.      | Yashwant Laxkar | 2010 | Stability analysis of vermicompost  |
| 3.      | Sujata Sharma   | 2010 | Effect of stocking density on biomass growth and reproduction of <i>Eudrilus eugeniae</i> |

|    |                                     |      |   |
|----|-------------------------------------|------|---|
| 4. | Sheetal Singh                       | 2010 | Comparison of physical properties of vermicomposting and composting matrix                                |
| 5. | Vinod Kumar<br>Vishwakarma          | 2013 | Rotary drum composting of sewage sludge   |
| 6. | Pankaj Kumar                        | 2013 | Vermicomposting of Sludge from CETP   |
| 7. | Palem<br>Mohammed<br>Yunus          | 2017 | Anaerobic co-digestion of terrestrial weeds ( <i>Parthenium hysterophorus</i> and <i>Lantana camara</i> ) |
| 8. | Jyoti                               | 2018 | Not Decided   |
| 9. | Amlan<br>Aoichoirryya<br>Buragohain | 2018 | Not Decided   |