#### Dr. VAIBHAV RAJIV SAPKAL

# B.E. (Civil Engineering), M.Tech. (Civil Engineering), Ph.D. (Civil Engineering, IIT Roorkee)



### ASSISTANT PROFESSOR

# SCHOOL OF CIVIL ENGINEERING, SHRI MATA VAISHNO DEVI UNIVERSITY (SMVDU), KATRA, (J&K)

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- 1. Objective To Excel in Teaching Training and Research
- 2. Academic and Professional Qualification

| Examination | Board / University        | Branch                      | Yr. of  |
|-------------|---------------------------|-----------------------------|---------|
|             |                           |                             | Passing |
|             | Indian Institute of       | Civil Engineering           |         |
| Ph.D        | Technology Roorkee,       |                             | 2018    |
|             | India                     |                             |         |
| M.Tech.     | S.V.National Institute of | Civil Engineering           |         |
| WI. I CCII. | Technology Surat          | (Environmental Engineering) | 2011    |
|             | (Gujarat)                 | (Environmental Engineering) |         |
|             |                           |                             |         |
|             | Government College of     | Civil Engineering           |         |
| B.E.        | Engineering Amravati      |                             | 2008    |
|             | (Affiliated to S.G.B.     |                             |         |
|             | Amravati University)      |                             |         |
|             |                           |                             |         |

### 3. Present Position

Working as an Assistant Professor, School Of Civil Engineering, Shri Mata Vaishno Devi University (SMVDU) (Approved Under 12(b) & 2(f) of UGC Act 1956), Katra, (J&K) from 11 September 2018 to till date.

### 4. Under Graduate Project

Title: Design & Analysis of Multistory Building Using Software STADD-PRO

# 5. Post Graduate Project

**Title**: Evaluation Of Membrane Separation Technique & Anaerobic Treatment Using MSW Landfill Leachate

# **6. Post Graduate Group Project**

Title: Quality Assessment of 150 MLD Katargam Water Treatment Plant, Surat.

### 7. Ph. D. Thesis Title: Treatment of Municipal Solid Waste Leachate

(Ph.D. research work jointly carried out at Department of Civil Engineering, Indian Institute of Technology (IIT) Roorkee, India and National Environmental Engineering Research Institute (*NEERI*) Nagpur, India)

8. Sultanate of Oman Experience: - As a Analyst – Wastewater Treatment from 21-10-2011 to 01-11-2011 for Project entitled 'Harnessing Clean and Green Energy via Integrated Treatment of Industrial and Domestic Waste Water' funded by Research Council, Oman at Sohar University, Sohar, Oman

### **9.** Publications (Journal and Conferences)

| Sr. No | Title of paper                   | Title conference | of     | Date<br>Publication | of  | Place & Affiliation                                 |
|--------|----------------------------------|------------------|--------|---------------------|-----|---|
| 1.     | Water Treatment of Surat<br>City |                  | n<br>n | 10-12 Ma<br>2010    | rch | Pravara Rural Engg. College Loni University of Pune |

| 2. | Optimization of Hybrid Anaerobic and Membrane Treatment of MSW Landfill Leachate   | International Conference On Environment And Industrial Innovation (ICEII 2011) | 17-19 June 2011  | Kuala Lumpur<br>MALAYSIA<br>APCBESS                   |
|----|--|--|------------------|---|
| 3. | Development Of Reverse Osmosis Technique For Treatment Of Highly Contaminated Municipal Solid Waste Landfill Leachate                | ACHEMA 2012  | 18 -22 June 2012 | Frankfurt Main, German DECHEMA                        |
| 4. | Development of hybrid technique for treatment of landfill leachate by combining anaerobic and membrane techniques                    | ACHEMA 2012  | 18 -22 June 2012 | Frankfurt Main, German DECHEMA                        |
| 5. | Development of Hybrid Anaerobic Digestion and Membrane Separation Technique for Treatment of Municipal Solid Waste Landfill Leachate | The 5th International Conference on Solid Waste Management                     | 2015             | Indian Institute of Science, Bangalore, India         |
| 6. | Biogas Production Potential Of Municipal Solid Waste Landfill Leachate – A Lab Scale Study   | CHEMIX' 19 (A National Conference on Intra- and Inter Disciplinary             | 30-31 March 2019 | Visvesvaraya National Institute of Technology, Nagpur |

|     |  | Blend of   |               |                    |
|-----|--|--|---------------|--------------------|
|     |  | Chemical   |               |                    |
|     |  | Engineering)   |               |                    |
| 7   | M 1 D 1  | CHEMIX' 19   | 20.21         | ¥7.                |
| 7.  | Membrane Based   |  | 30-31 March   | Visvesvaraya       |
|     | Integrated Solution For  | (A National  | 2019          | National Institute |
|     | Flower Waste From  | Conference on  |               | of Technology,     |
|     | Worship Places Along   | Intra- and Inter                                     |               | Nagpur             |
|     | With Environmental   | Disciplinary   |               |                    |
|     | Protection   | Blend of   |               |                    |
|     |  | Chemical   |               |                    |
|     |  | Engineering)   |               |                    |
| 8.  | Enhancing strength   | 6th National Conference on Engineering               | 29 March 2019 | Rayatbhara         |
|     | properties fly ash based                                       | Research and   |               | University,        |
|     | geo polymer concrete with                                      | Applications.  |               | Mohali             |
|     | ultra fine slag at ambient                                     | ERA – 2019.  |               |                    |
|     | temperature  |  |               |                    |
| 9.  | Development of hybrid anaerobic digestion and membrane         | 3rd International<br>Conference on<br>Thermal Power: | 5 June 2019   | Chandrapur         |
|     | separation technique for                                       | Chemistry and  |               | Super Thermal      |
|     | treatment of municipal   | Sustainable  |               | Power Station      |
|     | solid waste landfill leachate                                  | Environment (Poster                                  |               | (Govt. of          |
|     |  | Presentation)  |               | Maharashtra u/t)   |
| 10. | Waste treatment of highly contaminated MSW leachate and energy | International E-<br>Conference on<br>Recent          | 24- 25 August | University         |
|     | generation as a byproduct                                      | Transformations                                      | 2020          | Institute of       |
|     |  | in Chemical and Textile                              |               | Chemical           |
|     |  | Technology   |               | Technology,        |
|     |  |  |               | Kavayitri          |
|     |  |  |               | Bahinabai          |
|     |  |  |               | Chaudhari North    |

|     |   |  |            | Maharashtra   |
|-----|---|--|------------|---|
|     |   |  |            | University,   |
|     |   |  |            | Jalgaon   |
| 11. | Treatment of Municipal<br>Solid Waste Leachate: A<br>Review | Journal of Environemntal Science and Engineering, ISSN 0367 – 827 X, Volume 58 NO. 2 | April 2016 | CSIR – National<br>Environmental<br>Engineering<br>Research Insitute<br>Nagpur , India. |

# **10. Expert Lectures Delivered :**

| Sr. No | Title of the              | Title of the      | Date           | Organizing      |
|--------|---------------------------|-------------------|----------------|-----------------|
|        | seminar/conference        | Talk              |                | agency          |
| 1.     | Short Term Training       | Advance           | 18- 22 April   | Department of   |
|        | Programme                 | Technology for    | 2016           | Chemical        |
|        |                           | Conservation of   |                | Engineering     |
|        |                           | Energy and        |                | Jawaharlal      |
|        |                           | Sustainable       |                | Darda Institute |
|        |                           | Development       |                | of Engineering  |
|        |                           |                   |                | and Technology, |
|        |                           |                   |                | Yavatmal.       |
| 2.     | One Week AICTE FDP-       | Various           | 13-25          | Department of   |
|        | (Present Scenario of      | Treatments of     | November 2017  | Civil           |
|        | treatment of waste in     | Municipal Solid   |                | Engineering,    |
|        | India: Challenges, Issues | Waste and         |                | Sanjivani       |
|        | and new techniques of     | Leachate          |                | college of      |
|        | treatment)                |                   |                | Engineering,    |
|        |                           |                   |                | kopargaon,      |
|        |                           |                   |                | Ahmednagar.     |
| 3.     | One Week AICTE FDP-       | Various           | 1- 14 December | Department of   |
|        | Recent Trends in Process  | Methods for       | 2017           | Chemical        |
|        | Intensification           | Treatment of      |                | Engineering of  |
|        |                           | municipal solid   |                | Pravara rural   |
|        |                           | waste and         |                | Engineering     |
|        |                           | landfill leachate |                | College, Loni.  |
| 4.     | One Week AICTE _QIP       | Treatment of      | 3 -7 July 2019 | Department of   |
|        | FDP on Waste to Energy –  | municipal solid   |                | Chemical        |
|        | A Green Approach Solar    | waste and         |                | Engineering,    |
|        | Energy                    | landfill leachate |                | Shri Guru       |

| 5. | Faculty Development<br>Program on Energy and<br>Power Systems  | Municipal solid<br>waste and<br>leachate<br>management for<br>India: Status,<br>challenges and<br>energy | 05- 09 August<br>2019    | Gobind Singhji Institute of Engineering and Technology, Nanded (Maharashtra) School of Energy Management, Shri Mata Vaishno Devi University Katra (J&K) |
|----|--|--|--------------------------|---|
| 6. | One week National  | generation from waste  Municipal solid   | 16 -20                   | Department of   |
|    | Workshop on 'Civil<br>Engineering for Green and<br>Inclusive Sustainable<br>Development                      | waste and<br>leachate<br>management for<br>India   | September 2019           | Civil Engineering, Rajkiya Engineering College, Ambedkar Nagar (U.P.)   |
| 7. | One week National<br>Workshop on 'Civil<br>Engineering for Green and<br>Inclusive Sustainable<br>Development | Treatment of<br>waste by waste<br>with zero<br>discharge   | 16 -20<br>September 2019 | Department of Civil Engineering, Rajkiya Engineering College, Ambedkar Nagar (U.P.)   |
| 8. | One week short term<br>training program on<br>'Recent Trends in Civil<br>Engineering'                        | Impact of<br>Municipal Solid<br>Waste on<br>Environment in<br>India                                      | 13-17<br>November 2019   | Department of Civil Engineering, Rajkiya Engineering College, Ambedkar Nagar (U.P.)   |
| 9. | Attended Selection Committ<br>on 09-07-2019 at University  | _  | _                        | C v   |

# ${\bf 11.\ Conferences,\ workshop,\ seminar\ attended}$

| S.No. | Title of Conference/Seminar etc.   | Date(s) of the event   | Organized by  |  |
|-------|--|------------------------|---|--|
| 1.    | German Workshop on Management Of Water<br>Supply And Wastewater System                             | 2009                   | Indian Institute of<br>Technology, Mumbai<br>India  |  |
| 2.    | Indo-German Conference on Cities In The Era<br>Of Climate Change                                   | 17-18 January<br>2011  | Indian Institute of<br>Technology, Mumbai<br>India  |  |
| 3.    | Enviro 7vision 2010  | 25-27 November<br>2010 | IIT Bombay, Mumbai  |  |
| 4.    | International conference on Sustainable Water<br>Resource Management and Treatment<br>Technologies | 19-21 January<br>2011  | NEERI Nagpur  |  |
| 5.    | Young Water Professional Programme   | 22 January 2011        | NEERI Nagpur  |  |
| 6.    | International workshop on Advances in Disinfection Technologies                                    | 9 February 2011        | NEERI Nagpur  |  |
| 7.    | Modeling of Environmental Systems  | 28- 29 March 2011      | Pravara Rural Engineering College, Loni   |  |
| 8.    | Management and Valorisation of Industrial and Agricultural Wastes                                  | 12 October 2011        | IIT Bombay  |  |
| 9.    | Laboratory Methods for Water & Wastewater Analysis and Air Quality Monitoring                      | 20-24 May 2019         | Civil Engineering Department,  Vivesvaraya National Institute of Technology (VNIT),Nagpur |  |
| 10.   | One day Workshop on Scilab   | 4 May 2019             | IIT Bombay Mumbai   |  |

| 11. | International Conference on Digital Pedagogy   | 1-2 April 2019         | Ministry of Human<br>Resources and<br>Development – MHRD,<br>and All India Council of<br>Technical Education |
|-----|--|------------------------|--|
| 12. | Microsoft Workshop on Transforming education through technology  | 3 April 2019           | Ministry of Human<br>Resources and<br>Development – MHRD,<br>and All India Council of<br>Technical Education |
| 13. | One week Professorial Development Training under TEQIP III   | 26 - 30 August<br>2019 | Indian Institute of Management Tiruchirappalli   |
| 14. | One week FDP on Recent Advances in Civil Engineering   | 2 - 7 June 2020        | Civil and Environmental<br>Engineering Department,<br>Veermata Jijabai<br>Technological Institute,<br>Mumbai |
| 15. | International Symposium on Environmental Vedic Wisdom  | 5- 6 June 2020         | Maharaj J P VArts,<br>Commerce and Shri V K<br>K Science College<br>Dhadgaon, Nandurbar.                     |
| 16. | National Level One Day Awarness Workshop<br>on "Outcome Based Education and<br>Accredation" for Engineering Colleges | 11 September 2020      | G H Raisoni Institute of<br>Engineeing and<br>Technology, Nagpur.  |

# 12. Best Paper Award

Paper : Membrane Based Integrated Solution For Flower Waste From Worship Places Along With Environmental Protection

Secured Best Paper Award, 2 nd position for in CHEMIX' 19 (A National Conference on Intraand Inter Disciplinary Blend of Chemical Engineering) held on 30-31 March 2019 in Visvesvaraya National Institute of Technology, Nagpur

### 13. Workshop organized

- 1. Coordinator of 1st National Conference on Recent Advances in Civil Engineering organized by Jawaharlal Nehru Technological University (JNTUH), Hyderabad and Shri Mata Vaishno Devi University (SMVDU), Katra, J&K on 5 July 2019, at of Civil Engineering, JNTUH Hyderabad.
- 2. One Day National Workshop on 'Disaster Management' jointly organized by Jawaharlal Nehru Technological University (JNTUH), Hyderabad and Shri Mata Vaishno Devi University (SMVDU), Katra, J&K on 26 September 2018 at Department of Civil Engineering, JNTUH Hyderabad.
- 3. Coordinator of Workshop on STAAD Pro (Analysis and Design Software) organized on 17-18 September 2019 at Department of Civil Engineering, Shri Mata Vaishno Devi University (SMVDU), Katra, J&K.
- 4.Two days workshop on STTAD-PRO Organized by School of Civil Engineering, SMVDU as a coordinator on 17-18 September 2019
- 5. Twining arrangement under TEQIP III with JNTUH Hyderabad for completion of 10% syllabus at SMVDU on 9-10 November 2019
- 6. Twining arrangement with IIT Jammu for conducting laboratory experiment of 4th Sem Students at IIT Jammu in February and March 2020.
- 7. Organized Webinar on Air Pollution and Control is organize at SMVDU on 15 12 2021
- 8. Organized Webinar on on Systems Engineering for Wastewater Treatment and Asset Management at SMVDU on 17-05-2022

#### 14. Session Chair

1. Session Chair of 6 th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET).

Sponsored By – SMVDU – TBIC and TEQIP – III on 17- 18 January 2020

Organized by – Shri Mata Vaishno Devi University Katra, Jammu and Kashmir.

2. Session Chair of 1st National Conference on Recent Advances in Civil Engineering organized by Jawaharlal Nehru Technological University (JNTUH), Hyderabad and Shri Mata Vaishno Devi University (SMVDU), Katra, J&K on 5 July 2019, at of Civil Engineering, JNTUH Hyderabad.

### 15. Book Published

Title of Book - Management of Solid Waste for Protection of Environment: A New Approach

(ISBN 978-3-659-58577-7)

Publisher - Lambert

# 16. Membership

- 1. Member of Indian Association For Environmental Management, NEERI Nagpur
- 2. Associate Member of The Institution of Engineers (India)

### 17. MOOCs Courses

| S.  | Date of training    | Course title            | <b>University / Institute</b> | Outcomes  |
|-----|---------------------|-------------------------|-------------------------------|-----------|
| no. |                     |                         |                               |           |
| 1   | July to November    | Integrated Waste        | IIT Kharagpur                 | Completed |
|     | 2019                | Management for a Smart  |                               | _         |
|     |                     | City                    |                               |           |
| 2   | January to March    | Electronic Waste        | IIT Kharagpur                 | Completed |
|     | 2020                | Management - Issues     |                               |           |
|     |                     | And Challenges          |                               |           |
| 3   | 01 -09 – 2021 to 31 | Orientation Towards     | National Institute of         | Completed |
|     | -10 - 2022          | Technical Education and | Technical Teachers            |           |
|     |                     | Curriculum Aspects      |                               |           |

|   |                     |                        | Training and Research, Chennai  |           |
|---|---------------------|------------------------|---------------------------------|-----------|
| 4 | 01 -09 – 2021 to 31 | Professional Ethics &  | National Institute of           | Completed |
|   | - 10 - 2022         | Sustainability         | Technical Teachers Training and |           |
|   |                     |                        | Research, Bhopal                |           |
| 5 | 01 -09 – 2021 to 31 | Communication Skills,  | National Institute of           | Completed |
|   | -10 - 2022          | Modes & Knowledge      | Technical Teachers              |           |
|   |                     | Dissemination          | Training and                    |           |
|   |                     |                        | Research,                       |           |
|   |                     |                        | Chandigarh                      |           |
| 6 | 01 -09 – 2021 to 31 | Instructional Planning | National Institute of           | Completed |
|   | -10 - 2022          | and Delivery           | Technical Teachers              | _         |
|   |                     | _                      | Training and                    |           |
|   |                     |                        | Research, Bhopal                |           |

# 18. . Involvement in Management of Institutional Development

- A. Laboratory Development / School Activity
  - 1. Started PG Course, M.Tech. Environmental Engineering
    - Laboratory Development / School Activity
  - 1.Surveying Laboratory
  - 2. Environmental Engineering Laboratory

Substantial efforts were made in preparing list of equipment's, addresses of suppliers, budget and budgetary provisions and Purchas Process

- Member Secretary of Board of Studies of Civil Engineering, SMVDU
- Member of SWAYAM Committee, SMVDU Katra
- Time Table Coordinator of SoCE, SMVDU Katra
- Member of Academic Affairs Committee, SoCE
- Faculty Advisor for Cultural Committee of SoCE, SMVDU Katra
- Internal Member of School Academic Integrity Panel
- Registration coordinator for 5<sup>rd</sup> and 7<sup>th</sup> Sem of SoCE for year 2021-22
- Prepared Corse Booklet of B.Tech. Civil Engineering for SoCE
- Member of School Purchas Committee

- B. Participation in University Activities
  - Member of Engineering Affairs committee of SMVDU
  - Member for Aquagard/Water Filter Repair committee of SMVDU
  - Member of Green Audit committee of SMVDU
  - Member of Stock Verification of Library Books in SMVDU Committee
  - Member of Green Audit Committee SMVDU

#### 19. References

1. Prof. Dr. Munish Kumar Chandel

Professor and Head

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2. Dr. Atul N. Vaidya

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(Dr. VAIBHAV RAJIV SAPKAL)