Cover Letter

Dear Sir/Madam

This is regarding the faculty position in the area of Environmental Science or closely associate field at your reputed university. I am Indian national and working as Assistant Professor in the area of Environmental Science at Adigrat University, Ethiopia under United Nation Development Program. I did my doctorate in Environmental Science from Indian Institute of Technology Roorkee, a well-known institute worldwide. Before doctorate, I completed my Master of Technology (M. Tech) in the field of Environmental Science and Technology from a reputed technological university of India. As a part of my master thesis, I worked on application of nano-photocatalysis for the degradation of toxic dyes, textile and pharmaceutical effluents.

I have six and half years teaching and six-year research experience at national and international level. During my academic journey, I dealt with several core and multidisciplinary courses for e.g. environmental impact assessment, environmental studies, industrial waste management, wastewater treatment and air pollution control, water supply and treatment, sewerage and sewage treatment, industrial wastewater treatment for undergraduate and post graduate program. I am actively involved in the courses and laboratory development for UG and PG program. Further, I am also actively involved in the research project preparation and paper publications. Presently, I have submitted two large scale research project in the area of waste management and one small scale university sponsored research project completed. Another research project on groundwater quality monitoring is under progress. Based on my research and academic journey, I have contributed around twenty research papers in reputed journals, two book, few papers are under preparation and communicated. In addition, many oral/poster presentations were delivered in the international conferences. I have guided research based projects in the area of Environmental Engineering at UG, PG and one Ph.D. thesis is under progress. I am also trying for some research collaborations at different institutions at national and international level. I am also enthusiastic to provide environmental consultancy and develop research facilities to monitoring and solve the environmental problems along with the teaching at your reputed university.

I am extremely keen and enthusiastic to work as faculty positon in the area of Environmental Science or closely associated field at your reputed university. I strongly believe that my background qualification and experience in the related field makes me a suitable candidate for the position available.

Looking forward to be a part of reputed and well established organization!!!

Thanking You

Warm Regards,

Dr. Chhotu Ram, M. Tech, Ph. D. (IIT Roorkee)

Teaching Statement

Dear Sir/Madam

I am motivated to applying for a teaching position at your reputed university. I strongly believe that education is the strong pillar of the development of any nation. I have around six years teaching experience in the discipline of Environmental Science and Engineering at national and international level. I dealt with several multidisciplinary courses in the area of Environmental science and engineering discipline for UG and PG level. Currently, I am dealing the courses relevant to master program in Environmental Engineering. I strongly believe that teaching is the students learning and could be enhanced by using innovative techniques and concepts. Students are at the center of my lesson planning process. My first goal is to create an atmosphere that encourages participation and involvement in the classroom. Sometimes the simplest teaching method can work the best. For example, I use charts, diagrams, video clip and other visual representations to show relationships and often very useful to clear understanding to students. I define my objectives of the courses and work accordingly. Another way is the enquiry based instructions, group discussion and social interaction to enhance and generate their own idea which is an effective approach in the classroom. Also check the background and capability of students which help to differentiate their potential and motivate them for the hard work.

My teaching experience indicates that students generally want simple and relevant examples to clarify the concepts. Another comes from my experience that routinely practical and experimental exposure helps in better understanding to the students. In case of ecology, environmental studies, water and wastewater engineering, hand on experience, industrial or field visits give more practical exposure and established a strong learning tool. I usually organize some industrial visit like water treatment plants, natural sites, industries, and sewage treatment plants etc. for this purpose. Besides, presenting material and course content that are gauged to students needs and interests such as assignments and seminars to enhance student's exposure and their analysis. Students are encouraged to visit office hours, especially to discuss their ideas, plans, and style for assignments throughout the semester and help to improve over time. Finally, examination also work as an opportunity for students to synthesize the semester work and review outline for exam help them to see big picture and course themes. Being an academician, usually update course content and stream and addition of new and more relevant courses also helps time to time. As my long term vision, we can start new online program, diploma, training program, workshop and conference to enhance the teaching and multi-institutional collaboration.

Looking forward for a long association!!!!

Thanking You

Regards,

Dr. Chhotu Ram

Teaching Plan

My teaching interest include wide and multidisciplinary courses. I have given details in the teaching statement courses dealt. I believe that being an academician should have the following teaching plan:

- My teaching plan include the update the course content, addition of new and relevant courses. As my long term vision, the department can start new online program, diploma, and distance learning program.
- We can organize the short term and long term hand on training program for the industry and institution in the region.
- We could explore some external state and national funding to organize the workshop and conference to enhance the teaching and research activities in the university. Further, this will help the multi-institutional teaching and research collaboration.
- I am also enthusiastic to provide environmental consultancy and develop advanced research facilities to monitoring and solve the environmental problems along with the teaching at your reputed University.

Research Plan

My area of interest includes water quality, wastewater treatment and solid waste management etc. I worked extensively and submitted research proposal at various agencies in these areas. Some of these are accepted and some of these are rejected. I want to continue with these areas if I will get an opportunity to work with your reputed university. Research plan in these areas are given below:

- Synthesis of activated carbon from the cactus and application for removal of heavy metals, PI: Dr. Kibrom A. G., **Co-PI: Dr. Chhotu Ram**, Submitted to TWAS (Italy) International grant, **Budget:** ~ USD 15000, April, 2020.
- Municipal Solid Waste Characterization, Development of Sustainable Solid Waste Management Strategy and Investigation of the Energy Recovery Potentials: Case of Adigrat Town, PI: Dr. Kibrom A. G., **Co-PI: Dr. Chhotu Ram**, Mr. Tassew A. M., Mr. Hailu Brhane. Submitted to Tigray Regional State Bureau of Science and Technology, **Budget:** ~ USD 214285.
- Production and characterization of fuel oil and activated carbon from waste by pyrolysis, PI: Mebrit G/Mariam, Co-investigators: **Dr. Chhotu Ram**, Nigesty G Cost: ~2400 USD. University Sponsored.
- Synthesis of ceramic cleaner with enhanced properties, Principal Investigator: Dr. Manoj Kumar (Professor, Deptt. of Chemistry) and Co-Investigator: **Dr. Chhotu Ram** (Deptt. of Civil Engineering) University Sponsored Amount: ~INR 20,000.
- Ganga river water and groundwater quality monitoring of industrially and agriculturally predominant areas of Bhagalpur Bihar with special focus on Vikramshila Gangetic Dolphin Sanctuary stretch - A GIS approach (Ref. No.: EMR/2016/007906), Date of submission: 31st December 2016, PI: Dr. Bushra Zaman, **Co- PI: Dr. Chhotu Ram Budget: ~** 197947 USD, Rejected and have to resubmit again.
- Studies on the reusability of treated municipal wastewater as makeup water in industrial cooling systems, Budget: ~41000USD, Extra Mural Research Funding (Individual Centric) to department of Science and Technology Govt of India, Reference No: 182015003602, December, 2015.
- An assessment of ground water quality of Adigrat town, To be submitted to University, **PI:** Dr. Chhotu Ram, Co-PI: Dr. Kibrom.
- I am also guiding various PG students and one Ph.D. thesis is also under progress. I am also trying for some research collaborations at different institutions at national and international level.
- I am also actively involved in the laboratory and courses development for UG and PG level. Students as a training or thesis part emphasize to work on real problems based on their interest and facilities available. We have to prepare students for next generation with the market demand of the industry.

CURRICULUM VITAE

Dr. Chhotu Ram M. Tech, Ph. D. (IIT Roorkee)
Assistant Professor, Discipline of Environmental Science, Adigrat University
Adigrat Ethiopia (Africa).
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Dr. Chhotu Ram
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Vai- Barwala Haryana 125121 (India)
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Career Objectives

To work as an enthusiastic researcher and academician developing pioneering works, through innovative contributions in the field of Environmental Science and Engineering for the sustainable and continuous growth of organization. I work by utilizing my entire analytical abilities and concept which in turn will be beneficial for the society.

Educational Qualification

- **Ph. D.** (Environmental Science and Engineering) 2014

  Date of Registration: 1-1-2009, Thesis submission: 16-06-2014, Thesis Awarded: 7th November 2014.

  Thesis title: Corrosion Investigation on Industrial Effluents.
  Institution: Indian Institute of Technology Roorkee.
  Grade: A grade by all examiners.

- **M. Tech** (Environmental Science and Technology) 2008

  University: Thapar University, Patiala
  Grade: First division (CGPA: 8.24)

- **M. Sc** (Environmental Science) 2006

  University: Chaudhary Devilal University, Sirsa
  Grade: First division (Percentage: 75.5)

- **Bachelor of Science** (B. Sc) 2004

University: Kurukshetra University, Kurukshetra
Grade: First division (Percentage: 63.24)

- **12th** (Science) 2001

  University/Board: Ajmer Board, Rajasthan
  Grade: First division (Percentage: 63.54)

- **10th** (Science) 1999

  University: Ajmer Board, Rajasthan
  Grade: First division (Percentage: 69.5)

Area of interest

- Wastewater treatment, Photocatalysis, Nanomaterials
- Waste Management, Materials development, Corrosion

Research Projects

- Rishabh Raj (PI), Bushra Zaman (Co: PI:), **Chhotu Ram (**Co: PI): Adigrat University, Ethiopia. Study on the vanishing wetlands of the Indo-Gangetic plains of Bihar using Remote sensing and GIS with a special focus on the Kabar Tal wetland, Begusarai, Bihar (India). **Funding agency**: Collaborative research scheme TEQIP-III: 3 Lakh INR (**Undergoing:** August 2019 to September 2020).
- Synthesis of activated carbon from the cactus and application for removal of heavy metals, PI: Kibrom A. G., **Co-PI: Chhotu Ram**, Co-PI: Tahmay. Submitted to TWAS (Italy) International grant, **Budget:** ~ USD 15000, April, 2020.
- Municipal Solid Waste Characterization, Development of Sustainable Solid Waste Management Strategy and Investigation of the Energy Recovery Potentials: Case of Adigrat Town, PI: Dr. Kibrom A. G., **Co-PI: Chhotu Ram**, Mr. Tassew A. M., Mr. Hailu Brhane. Submitted to Tigray Regional State Bureau of Science and Technology, **Budget:** ~USD 214285 ~INR 1.5 Crore (~ 60 Lakh ETB).
- An assessment of ground water quality of Adigrat town, **To be submitted to University**, **PI:** Dr. Chhotu Ram, Co-PI: Dr. Kibrom.
- Production and characterization of fuel oil and activated carbon from waste by pyrolysis, PI: Mebrit G/Mariam, Co-investigators: **Chhotu Ram**, Nigesty G Cost: ~ INR 168000 (~69900 Birr). University Sponsored.
- Synthesis of ceramic cleaner with enhanced properties, Principal Investigator: Dr. Manoj Kumar (Professor, Deptt. of Chemistry) and Co-investigator: **Dr. Chhotu Ram** (Deptt. of Civil Engineering) University Sponsored Amount: 20,000 INR.
- **Dr. Chhotu Ram** (PI) and Y. K. Singh (Co-PI), Waste paper recycling plant, Civil Engg. Department, University Sponsored Amount: 8.50 Lakh.
- Ganga river water and groundwater quality monitoring of industrially and agriculturally

predominant areas of Bhagalpur Bihar with special focus on Vikramshila Gangetic Dolphin Sanctuary stretch - A GIS approach (Ref. No.: EMR/2016/007906), Date of submission: 31st December 2016, PI: Bushra Zaman, **Co- PI: Chhotu Ram Budget:** INR 1,38,56,322, Rejected and have to resubmit again.

Research Experience

- **Electrochemical Corrosion Investigation on Industrial Effluents (5.5-year Ph. D.)**.

  - Under Dr. A. K. Singh and Dr. Chhaya Sharma (IIT, Roorkee).

- **Photocatalytic Treatment of Textile Dye and Wastewater (1 year in M. Tech)**.

  - Under Dr. Amit Dhir (Thapar University, Patiala).

- **Temporal Variation in Water Quality of Three Temple Ponds of Haryana: Impact of Mass Bathing (6 months in M. Sc)**.

  - Under Dr. Anju (Chaudhary Devilal University, Sirsa).

Experience (~ 6-year full time)

- Presently working as Assistant Professor, Adigrat University, Ethiopia (Africa) under **United Nations Development Program (UNDP)** from 22nd November 2017 to till date.
- 3 years and 2-month teaching experience as Assistant Professor in Environmental Engineering Discipline at M. M. University, Sadopur (Ambala).
- 5-month teaching experience as Lecturer in Environmental Engineering Discipline at M. M. University, Mullana (Ambala).
- Subject taught i.e. Wastewater treatment and air pollution control, Water supply and treatment, Environmental studies, Sewerage and sewage treatment, EIA, Industrial wastewater treatment, Waste management, Environmental laboratory.
- Six year of research experience in planning and executing research in the area of industrial effluent characterization, wastewater treatment, corrosion testing and materials performance etc.
- Five Year experience as Teaching Assistant for Environmental Engineering Laboratory and Tutorials classes for B. Tech students at IIT Roorkee.

Ph. D Supervision under Progress

- Mr. Manmohal Lal Kamboj Title: Novel nanophotocatalyst synthesis approach for degradation of environmental pollutants, [Supervisor: Prof. Parveen Sharma, Department of Environmental Science and Engineering, Guru Jambeshwar University of Science and Technology, Hisar and Co-Supervisor: **Dr. Chhotu Ram**, Assistant Professor, Department of Chemical Engineering, Adigrat University, Ethiopia (Africa).

PG thesis supervision (M. Tech)

- Fabrication and characterization of floor tiles from plastic and eggshell wastes: **G/Hiwet Tadese, Completed**.

- Assessment of tannery solid waste management and characterization (A case of sheba leather industry PLC**)** Wukro: **Desnet Gebrekidan Tegadye, Completed**.
- Utilization of cactus cacdod as activated carbon for the adsorption of lead from aqueous solution.: **Letebrehan G/anemia Gebreslasie, Completed**.
- Production of brick from tannery waste: **Tsegihiwot, On-going**.

UG thesis supervision

- Production and characterization of biomass briquette from tannery solid waste and cow dung admixtur, Bisrat Seifu (2928/07), Freweyni Shushay (3185/07), Nigsti Abrha (3954/07) **Advisor:** Dr. Chhotu Ram, June 2019, Adigrat University, Ethiopia.
- Pyrolysis of agro waste (corn trash) for production of charcoal briquettes, Kiros Aregawi (3587/07), Seble Getahun (1015/06), Weiyni Negash (4414/07), Advisor: **Dr. Chhotu Ram,** June 2019, Adigrat University, Ethiopia.
- Production of herbal shampoo from aloe vera leaf, Kiros G/Medihn (0937/06), Melkamu Addis (1074 06), Seid Aragaw (1285/06). **Advisor:** Dr. Chhotu Ram, June, 2018 Adigrat University, Ethiopia.
- Extraction and characterization of essential oil from moringa seed, Letu Desalgn (0969/2006), Lichiya Alem (0971/2006), Rgbey Kidey (1242/2006). **Advisor:** Dr. Chhotu Ram, June, 2018 Adigrat University, Ethiopia.
- Extraction and optimization of calcium carbonate from eggshell, Abrehet Gebreamlak (0056/06), Letebrhan Gebremicheal (0964/06), Mamit Gebremichael (1000/06). **Advisor:** Dr. Chhotu Ram, June, 2018 Adigrat University, Ethiopia.
- River water quality and its impact on health: A case study Ghagghar river stretch from Kalka to Derabassi, Chandigarh. Anurag Tanwar et al., **Advisor:** Dr. Chhotu Ram and Dr. Bushra Zaman. May 2017, M. M. University, Sadopur Ambala.
- Integrated solid waste management study of Ambala city, Lovleen, Rajat, Ishfaq, Gurkirat, **Advisor**: Dr. Chhotu Ram. December, 2016. M. M. University, Sadopur Ambala.
- Performance and evaluation of effluent treatment plant of textile industry, Anand Sagar et al., **Advisor:** Dr. Chhotu Ram. December, 2015, M. M. University, Sadopur Ambala.
- Fly ash based concrete, Sameer et al., **Advisor:** Dr. Chhotu Ram. May 2015, M. M. University, Sadopur Ambala.
- Utilization of plastic waste in flexible pavement, Asrar Ahmad et al., **Advisor:** Dr. Chhotu Ram. May 2015, M. M. University, Sadopur Ambala.
- Traffic characteristics of bridge over the railway line at Ambala City. Dhirendra Singh (RN:75111007). **Advisor**: Dr. Chhotu Ram. December 2014, M. M. University, Sadopur Ambala.

Lab Development

- Development of Environmental Engineering Laboratory at M. M. University, Ambala.

Technical skills

- Well-versed in handling potentiostat (PGZ301 model) for electrochemical corrosion test.
- Relevant course work in Corrosion Engineering and Water Pollution Control Engineering.
- Characterization of effluent by UV Spectrophotometer, Atomic Absorption Spectrophotometer, Flame Photometer, GC-MS, FTIR, XRD and HPLC etc.
- MS Office, 2003, 2007, 2010 (An Expert in Office PowerPoint, Word, Excel, MS Access, Outlook & Visio), Internet - Adobe Photoshop.
- Expert in OriginPro 8.5 (Advanced) Sigma plot (Advanced), Chemdraw (A Molecular Modeling and relating software), SPSS (Comprehensive and flexible statistical analysis and data management solution).

Extra-Qualification

- Successfully completed NEBOSH (UK) International General Certificate in Occupational Health and Safety.

Training

- Duration (6 weeks): Training on exposure to various "Environmental Testing Parameters" at Amar Laboratories, Mohali (Punjab).
- Five-day training course on "Urban Water Management" at CSE, New Delhi.
- One-week short term courses on "Sustainable development: Challenges opportunities through ICT" conducted by NITTTR, Chandigarh (12-10-15 to 16-10-15).
- 3 day FDP Programme attended at School of Architecture, M. M. University Sadopur Ambala.
- One-day training course on "Cleaner Technology in Pulp and Paper Industry" held at IIT Roorkee.

Research Papers Published/Communicated in Referred Journals

1. Desnet G. T., **Chhotu Ram,** K. Alebel (2020). Assessment and Characterization of Leather Solid Waste: A Case Study of Sheba Leather Industry PLC, Wukro (Ethiopia). **Under Preparation**.
2. **Chhotu Ram**, A. Kumar, P. Rani (2020). Recent Development on Biohydrogen Production from Wastewater: A Review. **Under Preparation**.
3. M. Hagos, A. Yimam, **Chhotu Ram**. Synthesis of Sugarcane Bagasse based Adsorbent for the Removal of Copper and Lead from Gold Mining Wastewater. **Under preparation**.
4. G. Tedesse, **Chhotu Ram**, K.A. Gebru (2020). Utilization of Eggshells and Plastic Waste as a Sustainable Resource for the Production of Floor Tiles. **Submitted: Construction and Building Materials,** Elsevier.
5. **Chhotu Ram**, and A. Kumar (2020). Sustainable Municipal Solid Waste Management: A Critical Review of Waste to Energy (WTE) Systems. **Submitted: Bioresources**.

6. **Chhotu Ram**, and Amit Dhir (2020). Photocatalytic Degradation of Procion Blue Dye and Textile Wastewater. S**ubmitted:** Applied Science, Springer.

7. M. Lal, P. Sharma, **Chhotu Ram**, Calcination Temperature Effect on Titanium Oxide (TiO_2) Nanoparticles Synthesis, **Submitted:** Material Science and Technology, Taylor and Francis.

8. Amit Kumar and **Chhotu Ram** (2020). Agave biomass: A Potential Resource for Production of Value-added Products. **Accepted:** Environmental Sustainability, Springer.

9. Amit Dhir, H. Rajput, N. Tejo Prakash, **Chhotu Ram**, S.K. Mahla, Dhiraj Sud (2020). Heterogeneous Photocatalytic Degradation of 4-Chloroguaiacol Present in Paper Mill Effluents Using Oxide Suspensions. **Accepted**: Egyptian Journal of Chemistry, Scopus/ESCI.

10. A. Kumar, **Chhotu Ram** and Adebabay Tazeb (2020). Enzyme-assisted Pulp Refining: An Energy Saving Approach. Physical Sciences Reviews, De Gruyter, Germany. ISSN: 2365-659X, Scopus.

11. **Chhotu Ram**, P. Bishnoi, K. A. Gebru, Mebrhit G/mariam A. (2020). Pulp and Paper Industry Wastewater Treatment: Use of Microbes and their Enzymes. Physical Sciences Reviews, De Gruyter, Germany. ISSN: 2365-659X, Scopus (Manuscript DOI: 10.1515/PSR-2019-0050).

12. **Chhotu Ram,** B. Zaman and Amit Dhir (2019). Corrosion Investigations on Industrial Effluents: A Review**.** Corrosion Reviews, Vol. 37, issue 2, p. 115-130, SCI, De Gruyter Germany. IF: 2.528, ISSN: 0334-6005.

13. K. Singh, S. A. Waziri, **Chhotu Ram** (2018). Removal of Heavy Metals by Adsorption Using Agricultural Based Residue: A Review, Research Journal of Chemistry and Environment, Vol. 22 (5), p. 65-74, Scopus ISSN: 0972-0626.

14. K. Manzoor, B. Zaman, **Chhotu Ram** (2017). Status of Sukhna Lake: A Remote Sensing and GIS Perspective, International Journal of Current Trends in Science and Technology, Vol. 7 (12), p. 20511-20516, Dec. 2017, p. 2277-2812, UGC list.

15. K. Manzoor, P. Raj, R. Sheoran, S. Dey, J. Gupta, B. Zaman, **Chhotu Ram** (2017). Water Quality Assessment through GIS: A Case Study of Sukhna Lake, Chandigarh, India, International Research Journal of Engineering and Technology, Vol. 4 (1), p. 1773-1776, Nov. 2017.

16. S. A. Waziri, K. Singh, **Chhotu Ram** (2017). Application of Activated Carbon in the Treatment of Domestic Effluent: A Comparative Analysis. International Journal of Earth Sciences and Engineering, 10 (02), p. 435-444, April 2017, Scopus, ISSN: 0974-5904.

17. A. K. Singh and **Chhotu Ram** (2017). Electrochemical Corrosion of Steels in Distillery Effluent (World Academy of Science, Engineering and Technology) International Scholarly and Scientific Research & Innovation, 11 (6), p. 389-394 (Int. Science Index, Impact Factor 0.998).

18. A. Dhir, M. Kamboj and **Chhotu Ram** (2016). Studies on the Use of Calcium Hypochlorite in the TiO_2 Mediated Degradation of Pharmaceutical Wastewater. Environmental Engineering and Management, Vol. 15 (8), p. 1713-1720, (SCI IF: 1.334), ISSN: 1582-9596.
19. Vikramjit Singh, **Chhotu Ram** and Ashok Kumar (2016). Physico-Chemical Characterization of Electroplating Industrial Effluents of Chandigarh and Haryana Region. Journal of Civil & Environmental Engineering, Vol. 6 (4), p. 1-6, ISSN: 2165-784X.
20. **Chhotu Ram**, C. Sharma and A. K. Singh (2015). Corrosivity of Paper Mill Effluent and Corrosion Performance of Stainless Steels. Environmental Technology, Vol. 36 (6), p. 742-749, Taylor and Francis group (SCI impact factor 1.918) ISSN: 0959-3330.
21. **Chhotu Ram**, C. Sharma and A. K. Singh (2015). In-plant Study of Corrosion in Distillery Effluent Treatment Plant. Materials Engineering and Performance, Vol. 24 (5), p. 1841-1847, (SCI impact factor 1.476) Springer ISSN: 1059-9495.
22. **Chhotu Ram**, C. Sharma and A. K. Singh (2015). Corrosion Investigations on Secondary Stage Paper Mill Effluent. Anti-Corrosion Methods and Materials, Vol. 62 (5), p. 327-333, (SCI and Scopus IF: 0.614), Emerald Publication, ISSN: 0003-5599.
23. **Chhotu Ram**, C. Sharma and A. K. Singh (2014). Electrochemical Corrosion Investigation on Anaerobic Treated Distillery Effluent. Materials Engineering and Performance, Vol. 23 (9), p. 3321-3327, (SCI impact factor 1.476) Springer, ISSN: 1059-9495.
24. **Chhotu Ram**, C. Sharma and A. K. Singh (2012). Corrosion Performance of Mild Steel in Paper Mill Effluent. Advanced Materials Research, Vol. 585, p. 522-527, Scopus, ISSN: 1662-8985
25. A. Dhir, S. Sharma, D. Sud and **Chhotu Ram** (2012). Studies on Decolourization and COD Reduction of Dye Effluent Using Advanced Oxidation Processes. Elixir Chemical Engineering, Vol. 53, p. 11983-11987, (Poland IC value 5.09) ISSN: 2229-712X.
26. **Chhotu Ram**, R. K. Pareek and V. Singh (2012). Photocatalytic Degradation of Textile Dye by Using Titanium Dioxide. International Journal of Theoretical & Applied Sciences, Vol. 4, p. 82-88, ISSN**:** 0975-1718.
27. Amit Dhir and **Chhotu Ram** (2012). Design of an Anaerobic Digester for Wastewater Treatment. International Journal of Advanced Research in Engineering and Applied Sciences, Vol. 1 (5), p. 56-66, ISSN: 2278-6252.

International Conferences

1. M. Lal, P. Sharma, **Chhotu Ram (2019)** "Hydrothermal assisted synthesis of zinc oxide nanoparticles for environmental applications". International Conference on "Climate change towards health and agricultural sustainability (CCHAS)" organized by department of Environmental Science and Engineering, GJUS&T, Hisar (India), 18 -20th February, 2019.

2. M. Lal, J. Josun, P. Sharma, **Chhotu Ram (2018)** "Sol-gel assisted calcinations synthesis of titanium dioxide nanostructure". International Conference on "Sustainable agriculture, energy, environment and technology (ICSAEET)" organized by Environment Sustainability Management Cell in collaboration with Society for Sustainable Agriculture and Resource Management held at MDU, Rohtak (India), 24-25th February, 2018.
3. A. K. Singh and **Chhotu Ram** (2017), Electrochemical Corrosion of Steels in Distillery Effluent, World Academy of Science, Engineering and Technology (ICMMT 2017: 19th International Conference on Materials, Methods and Technologies), Vol. 4 (6), Abstract published, Presented by Dr. A. K. Singh, San Francisco USA (7-8th June).
4. S. A. Waziri, K. Singh, **Chhotu Ram**, Application of Activated Carbon in the Treatment of Domestic Effluent: A Comparative Analysis, International Conference on Recent Advances in Civil Engineering (ICRACE 2017), M. M. U. Mullana, May 04 -05, 2017.
5. Solar Photocatalytic Decolorization of Procion Blue HERD Textile Dye Using TiO_2 Nanoparticle, International Conference on Emerging Areas of Environmental Science and Engineering (EAESE-17), GJUST Hisar, 16-18 February 2017, Abstract published; Poster Presentation.
6. K. Singh, R. K. Lohchab, **Chhotu Ram** and S. A. Waziri, An Overview of Burning Agricultural Biomass Impacts on Environment and Its Management Considerations, International Conference on Emerging Areas of Environmental Science and Engineering (EAESE-17), GJUST Hisar, 16-18 February 2017, Abstract published: Oral Presentation by K. Singh.
7. S. A. Waziri, K. Singh, **Chhotu Ram**, Adsorption of Heavy Metal and Dye Using Rice Husk Activated Carbon: A Review, International Conference on Emerging Areas of Environmental Science and Engineering (EAESE-17), GJUST Hisar, 16-18 February 2017, Abstract published: Oral Presentation by S. A. Waziri.
8. P. Kumar, S. Kumar, N. K. Bhardwaj, **Chhotu Ram**, Removal of Chlorinated Resin and Fatty Acids from Paper Mill Wastewater through Photocatalysis, Proceedings of International Multi-Track Conference on Sciences, Engineering and Technical Innovations (IMTC-2015), May 22-23, Jalandhar, (Punjab). Vol. 2, pp. 260-264, **ISBN:** 978-81-929077-3-4.
9. **Chhotu Ram**, Chhaya Sharma and A. K. Singh. Corrosivity of Distillery Effluent and Corrosion Performance of Stainless Steels. Presented (ICEMA 5-6th April 2014 IIT Roorkee), Proceeding.
10. **Chhotu Ram**, Chhaya Sharma and A. K. Singh. Corrosion Investigations on Secondary Stage Paper Mill Effluent. Poster presented (ICEMA 5-6th April 2014 IIT Roorkee), Proceeding.
11. **Chhotu Ram**, Chhaya Sharma and A. K. Singh. In-plant Corrosion Investigation on Steels in Distillery Effluents, Poster Presentation in Eurocorr 2014 (8-12th September, Pisa, Italy).
12. **Chhotu Ram**, C. Sharma and A. K. Singh. Corrosion Performance of Nitrogen Alloyed Stainless Steel in Paper Mill Effluent. International Conference on High Nitrogen Steels-2012.

13. L. Kumar, A. Kumar and **Chhotu Ram**. Advances in Hydrolysis of Lignocellulosic Biomass by Hydrolysis Methods. Agriculture, Food Sciences and Environmental Technology for Sustainable Global Development, 2012.

National Conferences

1. S. Yadav, **Chhotu Ram** and A. Dhir. Photodegradation of Malachite Green dye using Fenton and Photo-fenton Oxidation Process. Clean Technology Conference, 2008 held at D.C.R.U. of Sc. & Tech, Murthal (Haryana), Oral presentation.
2. **Chhotu Ram**, S. Sharma and K. Singh, "Photodegradation of textile wastewater by using TiO_2 nanoparticle", Poster Presentation (Abstract in Proceeding), UGC sponsored Conference (organized by Khalsa College Patiala on 8th October, 2016) on Emerging Trends in Biotechnology: A Paradigm Shift to Cleaner and Greener India.
3. S. Sharma, **Chhotu Ram** and K. Singh, Assessment of Satluj River Water Quality Using Multivariate Statistical Method, Oral Presentation by Siddhartha (Abstract in Proceeding) UGC sponsored Conference (organized by Khalsa College Patiala on 8th October, 2016) on Emerging Trends in Biotechnology: A Paradigm Shift to Cleaner and Greener India
4. Attended National Conference (2016) on AETM at M. M. University Sadopur (Ambala).
5. Attended National Conference (2015) on AETM at M. M. University Sadopur (Ambala).

Book Chapter

1. Chhotu Ram, P. Bishnoi, K. A. Gebru, Mebrhit G/mariam A. (2019). Pulp and paper industry wastewater treatment: Use of microbes and their enzymes: Book: Green Pulp and Paper Industry: Biotechnology for Ecofriendly Processing. **Accepted,** Edited by: A. Kumar, P. Pathak and D. Dutt (2020), De Gruyter, Germany. ISBN: 978-3-11-059184-2.

   (**Online link:** https://www.degruyter.com/view/title/537271)
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3. **Chhotu Ram,** A. Kumar, Y. Bezie (2020). Global environmental issues and role of nanotechnology and biotechnology for green environmental processes. **Accepted:** Edited by: A. Kumar and Chhotu Ram (2020). Taylor and Francis, CRC Press.
4. A. Kumar and **Chhotu Ram** (2020). Lignocellulosic biomass wastes to bioenergy: Microbial enzymes for 2nd generation biofuels. **Accepted:** Edited by: A. Kumar and Chhotu Ram (2020). Taylor and Francis, CRC Press.

5. **Chhotu Ram**, B. Zaman, R. K. Jena and A. Kumar (2020). Recent trends in solar photocatalytic degradation of organic pollutants using TiO_2 nanomaterials. **Accepted** Edited by: A. Kumar and Chhotu Ram (2020). Taylor and Francis, CRC Press.

Book Published

- Amit Kumar and **Chhotu Ram** (2019-2020). Book Title: Nano-biotechnology for a Green Environment (Editors), CRC press, Taylor & Francis Group. https://www.routledge.com/Nanobiotechnology-for-Green-Environment/Kumar-Ram/p/book/9780367460686 (ISBN: 9780367460686).
- Lalit Kumar, **Chhotu Ram** and Vinay Kumar (2012). Loss of Heterozygosity of PTEN Gene in Cervical Carcinoma. (ISBN 978-3-8433-6747-9) Lambert Academic Publishing house Germany.

Papers in Abroad Conferences

- **Chhotu Ram**, Chhaya Sharma and A. K. Singh. In-plant Corrosion Investigation on Steels in Distillery Effluents, Poster Presentation in Eurocorr 2014 (8-12th September, Pisa, Italy).

Award/Fellowship

1. **Best poster presentation award** at International Conference on High Nitrogen Steels 2012 held at Chennai.
2. **MHRD Fellowship** as Junior Research Fellowship for research in Department of Applied Science and Engineering, IIT Roorkee from Jan. 2009 to Dec. 2010.
3. **MHRD Fellowship** as Senior Research Fellowship for research in Department of Applied Sciences and Engineering, IIT Roorkee from Jan. 2011 to Dec. 2012.

Membership/Others credentials

- **Citations:** 93, h-index: 6, i-10-index: 3
- Member of BOS committee during 2015-2017 at MM University Sadopur Ambala.
- Active member at university (MMU) level at UGC committee visit during 2014 -2015.
- Active member at university (MMU) level at NAAC visit during 2016-2017.
- Submitted one proposal for international conference at Adigrat University.
- Member of national conference (2015 and 2016) organized at M.M. University (Ambala).
- Reviewer at Environmental Technology Journal (Taylor and Francis Group), Materials Engineering and Performance (Springer), Physical Sciences Reviews, Chemical Engineering (Elsevier).
- International Association of Engineers (IAENG) (Member No: 166064).
- Worked as a volunteer in International Conference on Emerging Materials (5-6th April, 2014) at IIT Roorkee.
- Member of Management Committee of National Workshop on "Water Conservation: Need of the Hour", held at CDLU, Sirsa.
- Attended National Workshop on "Water Conservation", held at Thapar University, Patiala.

- First prize in quiz competition on ozone day held at CDLU, Sirsa.
- One-day workshop on 'Solid Waste Management' at NIT Kurukshetra (22nd October 2016).

Extra-curricular Activities

- Participated in 43rd state level volleyball championship held at Kankroli, 1998 (Rajasthan).
- Participated in state level open volleyball championship held Napasar, 1999 (Rajasthan).
- Got 3rd place in volleyball in inter-IIT sports meet held at IIT Kanpur 2009.
- Got 1st position in inter engineering deemed university tournament held at NIT Hamirpur 2006.
- Got 1st position in inter engineering deemed university championship held at NIT Kurukshetra.
- Member of core committee at 52nd Annual Athletic Meet Thapar University, Patiala, 2007-08.
- Joint secretary of discipline committee for Saturnalia Cultural Fest, 2007-08.
- Joint secretary of discipline committee for Aranya Technical Fest, 2007-08.
- Convenor and joint convenor of different committee and organized annual athletic sports meet at Thapar University, Patiala, 2007-08.
- Member of mess council at IIT Roorkee 2009.

Personal Details

- Date of Birth : 02 March 1983
- Father 's Name : Dharampal Rao
- Mother's Name : Savita Devi
- Nationality : Indian
- Category : Gen

References

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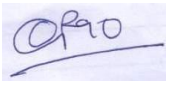
Declaration:

I hereby state that the statements made above are true to the best of my knowledge and belief.



(Chhotu Ram)