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## Dr. Chinchu Cherian

Previous First Name: CHINCHU Previous Family Name: CHERIAN Correspondence language: English Sex: Female Date of Birth: 1/04 Designated Group: Visible Minority Canadian Residency Status: Permanent Resident

### **Contact Information**

The primary information is denoted by (\*)

#### Address

<u>Home</u>

2915 Andres Road Prince George British Columbia V2N 1L8 Canada Primary Affiliation (\*)

UNBC School of Engineering 3333 University Way Prince George British Columbia V2N 4Z9 Canada

### Telephone

Mobile (\*)1-250-2589864Work1-250-960-5285

#### Email

Personal	chinchu0401@gmail.com
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# Dr. Chinchu Cherian

# Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes
Hindi	Yes	Yes	Yes	Yes	No
Malayalam	Yes	Yes	Yes	Yes	Yes
Tamil	No	No	Yes	Yes	No

# Degrees

- 2018/7	Doctorate, Geotechnical Engineering, Indian Institute of Technology, Madras Degree Status: Completed
	Supervisors: Dali Naidu Arnepalli, 2012/7 - 2018/7
- 2012/10	Master's Thesis, Environmental Geotechnology, National Institute of Technology Calicut Degree Status: Completed
	Supervisors: Sankar N, 2010/7 - 2012/5
- 2010/9	Bachelor's, Civil Engineering, Mahatma Gandhi University Degree Status: Completed
	Supervisors: Jeevan Jacob, 2006/9 - 2010/4

# Recognitions

2021/12	Best Paper at the UBC Okanagan Postdoctoral Research Day 2021 University of British Columbia Prize / Award
	The event was organized by UBC Okanagan's Postdoctoral Association in collaboration with UBC Vancouver's Postdoctoral Association and supported by the UBC Okanagan's College of Graduate Studies. Ireceived the event's best presentation award for my presentation titled "Evaluating the use of wood ash residue from Canadian pulp mills for stabilization of burnt forest soils- A novel method to increase resilience to wildfires and landslides." The presentation provided an overview of her research investigating the viability of wood ash, a pulp mill waste by-product, for long-term stabilization of wildfire-impacted forest soils.
2020/12	IGS-Shri A. G. Dastidar Biennial Award Indian Institute of Technology, Madras Prize / Award IGS-Shri A. G. Dastidar Biennial Award' for Best Paper on "Ground Improvement" published in Indian Geotechnical Journal, Vol. 48, Issue 3, September 2018 (pp. 393-404).

2019/3 - 2021/2	Scholarship -Mitacs Elevate Postdoctoral Fellowship University of British Columbia Distinction I was awarded a scholarship of 60,000 cads/year for completing a 2-year Mitacs Elevate Postdoctoral Fellowship at the University of British Columbia
2017/9	Gold Medal for University Third Rank in B.Tech Civil Engineering Examination Mahatma Gandhi University Prize / Award I won the third position/rank among 660 students in the 2006-2010 batch of B.Tech Civil Engineering, in the Mahatma Gandhi University (Kerala, India).

## **User Profile**

Research Specialization Keywords: Geoenvironmental Engineering, Geotechnical engineering, Industrial Waste management, Advanced Material Characterization, Sustainable Building Materials, Transmission electron microscopy, Scanning Electron Microscopy, X-Ray diffraction, Thermogravimetry, Atomic Absorption Spectrometry, Fourier Transform Infrared Spectrocopy, Mercury Intrusion Porosimetry

## **Employment**

2023/7	Assistant Professor (Tenure-Track) - Geotechnical Engineering Civil Engineering, School of Engineering, University of Northern British Columbia Full-time, Assistant Professor Tenure Status: Tenure Track At UNBC, I will focus on establishing and delivering foundational engineering courses in Civil Engineering, such as Soil mechanics, Foundation Design, Geotechnical engineering, Geoenvironmental engineering, as well as developing a research program. I will also contribute to the development of Environmental and Civil Engineering at UNBC and help to shape the curriculum for both the undergraduate and graduate programs while exploring sustainable design challenges for the future. I will be also supervising senior undergraduate and graduate students in their research projects, as well as establishing industrial/community partnerships for research projects.
2023/1 - 2023/6	Lecturer (Full-Time) Civil Engineering, Faculty of Applied Science, School of Engineering, Kelowna Campus, University of British Columbia Full-time, Term, Lecturer Tenure Status: Non Tenure Track At UBC, I was given teaching responsibilities for the School of Engineering as assigned by the Director and determined by the needs of the School of Engineering. In the Winter term (January-April 2023), I instructed 2 undergraduate courses (1) APSC 180-Statics for 1st year common engineering students, (2) ENGR 444- Solid Waste Engineering for 4th year civil engineering students. in the Summer term 1 (May-June 2023), I instructed the first year undergraduate course APSC 181-Dynamics. The course assignments included course delivery (lectures and tutorials), conducting assessments (assignments, project, midterm and final exams), all end-of-course work (marking exams, submitting grades), including any deferred or supplemental examinations that might be required or re-reads that students are entitled to receive. As a lecturer, I also had to participate in the important activities internal to the School of Engineering, and service to the Community beyond the University.

2023/1 - 2023/4	<ul> <li>Lecturer (Part-time)</li> <li>Civil Engineering Diploma, Science and Engineering, Kelowna Campus, Okanagan College</li> <li>Part-time, Term, Lecturer</li> <li>Tenure Status: Non Tenure Track</li> <li>At Okanagan College, I was given teaching responsibilities for the Civil Engineering</li> <li>Diploma Program as assigned by the Program Chair and determined by the needs of the Science and Engineering Division. In the Winter term (January-April 2023), I instructed</li> <li>2 courses (1) CIEN 145 - Elementary Hydraulics, (2) CIEN 236- Highway Materials</li> <li>Testing II. The course assignments included course delivery (lectures, tutorials, and labs), conducting assessments (assignments, quizzes, lab reports, midterm and final exams), all end-of-course work (marking exams, submitting grades), etc.</li> </ul>
2022/8 - 2022/12	<ul> <li>Lecturer (Full-time)</li> <li>Civil Engineering Diploma, Science and Engineering, Kelowna Campus, Okanagan College</li> <li>Full-time, Term, Lecturer</li> <li>Tenure Status: Non Tenure Track</li> <li>At Okanagan College, I was given teaching responsibilities for the Civil Engineering</li> <li>Diploma Program as assigned by the Program Chair and determined by the needs of the Science and Engineering Division. In the Fall term (September-December 2022),</li> <li>I instructed 3 courses (1) CIEN 134 - Statics and Strength of Materials, (2) CIEN 246-Pavements, (3) ENGR101- Engineering Design I. The course assignments included course delivery (lectures, tutorials, and labs), conducting assessments (assignments, quizzes, lab reports, midterm and final exams), all end-of-course work (marking exams, submitting grades), etc.</li> </ul>
2021/9 - 2022/7	<ul> <li>Sessional Instructor</li> <li>Civil Engineering, Faculty of Applied Science, School of Engineering, Kelowna Campus, University of British Columbia</li> <li>Part-time, Sessional, Lecturer</li> <li>Tenure Status: Non Tenure Track</li> <li>At UBC, I was given teaching responsibilities for the courses (1) ENGR 340 - Soil</li> <li>Mechanics, (2) APSC 253- Fluid Mechanics I, (3) ENGR 598P- Modern Characterization of Construction Materials The course assignments included course delivery (lectures and labs), conducting assessments (assignments, lab reports, midterm and final exams), all end-of-course work (marking exams, submitting grades), etc.</li> </ul>
2019/3 - 2021/12	Postdoctoral Research Fellow Civil Engineering, Faculty of Applied Science, School of Engineering, Kelowna Campus, University of British Columbia Full-time, Term Tenure Status: Non Tenure Track As a postdoctoral research fellow, my duties included: conducting research for strength improvement and sustainable development of problematic road subgrades through utilizing industry by-products from BC's pulp and paper industry. I also mentored 8 MASc research students with their projects on various topics (such as mechanical and thermal properties of fly ash treated rammed earth, stabilization of wild-fire impacted forest soils, utilization of waste textiles as soil reinforcement, developing eco-friendly soil media for plant growth, etc.). I co-authored many articles in peer-reviewed journals, and wrote research proposals for multiple Research Grants (NSERC Alliance, NSERC Engage, Mitacs Accelerate, CFI Funding, NFRF, RTI, R3C, etc.)

# Affiliations

The primary affiliation is denoted by (\*)

(*) 2023/7	Assistant Professor, School of Engineering, University of Northern British Columbia Mentor graduate research scholars (MASc, PhD); supervise undergraduate capstone projects; teach undergraduate level courses in civil and environmental engineering; contribute to curriculum and course development; establish geotechnical and geoenvironmental research lab, write for grants, do peer review, perform administrative duties for the department
2023/1 - 2023/6	Lecturer, School of Engineering, University of British Columbia Teach undergraduate courses in Engineering, Develop new courses, contribute to developing curriculum, Supervise undergraduate capstone projects, perform administrative duties,
2022/8 - 2023/4	Instructor, Civil Engineering, Okanagan College Teach courses for Civil Engineering diploma program
2019/3 - 2022/7	Postdoctoral research fellow, Faculty of Applied Science, University of British Columbia Peform industry-based research on waste valorization for alternative uses in geotechnical applications; mentor and supervise MASc and PhD students, manage advanced geomaterials lab, write papers for high-impact journals and inernational/national conferences; prepare reports and project presentations for industry partners; provide teaching support as sessional instructor

# **Research Funding History**

#### Awarded [n=1]

2023/7 - 2026/7Start-up Funding, GrantPrincipal InvestigatorFunding Sources:

University of Northern British Columbia Start-up Funding Total Funding - 60,000 Portion of Funding Received - 60,000 Funding Competitive?: No

### Completed [n=1]

**Co-applicant** 

2019/3 - 2021/2 Mitacs Elevate Postdoctoral Fellowship, Fellowship

Funding Sources:

Mathematics of Information Technology and Complex Systems (MITACS) Mitacs Elevate Postodoctoral Fellowship Total Funding - 120,000 Portion of Funding Received - 97,000 Funding Competitive?: Yes

Principal Applicant : Sumi Siddiqua

#### **Courses Taught**

Course Instructor, University of British Columbia Course Title: Fluid Mechanics I Course Code: APSC 251 Guest Lecture?: No

Course Instructor, University of British Columbia Course Title: Engineering Mechanics- Dynamics Course Code: APSC 181 Guest Lecture?: No

Course Instructor, Okanagan College Course Title: Highway Materials Testing II Course Code: CIEN 236 Guest Lecture?: No

Course Instructor, University of British Columbia Course Title: Solid Waste Engineering Course Code: ENGR 444 Course Level: Undergraduate Guest Lecture?: No

Course Instructor, Okanagan College Course Title: Elementary Hydraulics Course Code: CIEN 145 Guest Lecture?: No

Course Instructor, University of British Columbia Course Title: Soil Mechanics Course Code: ENGR 340 Guest Lecture?: No

Course Instructor, Okanagan College Course Title: Pavements Course Code: CIEN 246 Guest Lecture?: No

Course Instructor, Okanagan College Course Title: Engineering Design I Course Code: ENGR 101 Guest Lecture?: No

Course Instructor, University of British Columbia Course Title: Engineering Mechanics- Statics Course Code: APSC 180 Guest Lecture?: No

Course Instructor, Okanagan College Course Title: Statics and Strength of Materials Course Code: CIEN 134 Course Level: Undergraduate Guest Lecture?: No

### **Event Administration**

2022/1 - 2022/4 Co-ordinator, Shastri Conference and Lecture Series (SCLS) - Topic- Systematic characterization of tailings for an efficient utilization (Waste Management), Seminar, 2022/3 - 2022/3

### **Mentoring Activities**

Mentor, University of British Columbia Number of Mentorees: 11

Mentorees: Bring,J; Rahman,S; Ajabi,A; Islam,S; Zarazvand,K; Adhikar,S; Al-Saggaf,A (MASc scholars- UBC) Chandra,A; Sharaby,A; Babalar,M (PhD scholars- UBC) Kumar,A (Mitacs Globalink visiting student)

I have trained and mentored 11 HQP during my past four years of Postodoctoral fellowship and lecturership at the University of British Columbia, including seven MASc, three PhD, and one undergraduate student from Indian Institute of Technology Dhanbad completing a summer internship at UBC. In my mentoring role, I provided HQP with specialized training in geotechnical laboratory testing andanalytical characterization of geomaterials. I provided hands-on-training to HQP on various microscopic and spectroscopic techniques such as FTIR, SEM-EDS, XRD, TGA, AAS instruments, to examine geomaterialmorphological and compositional characteristics. I reviewed the manuscripts, reports, and theses of HQP and offered critical feedback for improvement. Ialso worked with HQP in journal articles and conference paper preparations.

Mentor, Indian Institute of Technology, Madras Number of Mentorees: 9

Mentorees: Padmaraj, D (PhD student) Bandipally, S (MS student) Prasannan, P; Gorle, S; Dogga, T; Balraj, N; Raviteja, N. (undergraduate students)

I have mentored one PhD student, one MS student, and seven undergraduate students during my PhD program at IIT Madras. As a mentor, my activities included providing hands-on-training on important laboratory soil testing methods and material characterization tools (XRD, TGA,SEM, AAS, FTIR), help with data analysis, assist in thesis and journal paper preparation, give coaching tips and guidelines to improve presentation skills.

### **Journal Review Activities**

Reviewer, Reviewer, MDPI (Sustainability, Resources, Applied Science, Materials, Energy, Atmosphere), Journal, MDPI Publications Number of Works Reviewed / Refereed: 8

## **International Collaboration Activities**

### 2020/1 - 2021/6 Postdoctoral Researcher, Canada

During my postdoctoral research, I had a research collaboration with AggreBind Inc. New Haven, Connecticut, USA. The outcome of this research was the developmment of a post-fire soil restoration and stabilization technique using a combination of wood ash by-product from Canadian pulp mills and the a polymer binder product from AggreBind. The results of the research is published in "Bring, J., Siddiqua, S. and Cherian, C., 2020, September. Developing a sustainable post-fire soil restoration technique using pulp mill fly ash. In *the Proceedings of 73rd Canadian Geotechnical Conference (Geo Virtual 2020)* (pp. 14-16)".

### **Committee Memberships**

2023/10 Committee Member, Canadian Geotechnical Society Education Committee, Canadian Geotechnical Society At the CGS Education Committee, I will be collaborating with the other committee members to identify and address issues and problems concerning all aspects of continuing education of the society members.

### **Other Memberships**

2023/10 Member, American Society of Civil Engineers As a member of ASCE, I connect with engineering professionals and student members at various international events. I am hoping to contribute to the society by organizing research and training workshops in collaboration with industry partners, offering student internships, and providing career guidance to young members. 2023/10 Member, Canadian Society for Civil Engineering As a member of CSCE, I develop and maintain high standards in my research and HQP training activities. I also contribute to the improvement of Civil Engineering curriculum, course contents, and teaching strategies at UNBC. 2022/1 Member, Canadian Geotechnical Society As a member of the Canadian Geotechnical Society (CGS), I attend workshops and seminars for professional development. I also delegate student HQP to participate in the annual CGS conference, and create opportunities for knowledge transfer and networking with other geotechnical professionals.

## **Most Significant Contributions**

 A critical appraisal of the role of clay mineralogy in lime stabilization International Journal of Geosynthetics and Ground Engineering - impact factor 2.6
 A novel stabilized rammed earth using pulp mill fly ash as alternative low carbon cementing material Journal of Construction and Building Materials - Impact Factor 7.7
 Calcium adsorption on clays: effects of mineralogy, pore fluid chemistry and temperature Journal of Applied Clay Science - Impact factor 5.9
 Engineering and environmental evaluation for utilization of recycled pulp mill fly ash as binder in sustainable road construction Journal of Cleaner Production / Impact Factor 11.1

2020/8	Effect of pore fluid pH on the collapse behaviour and microstructural evolution of a loess Journal of Environmental Geotechnics - impact factor 2.6
2022/2	Sustainable applications of textile waste fiber in the construction and geotechnical industries: A retrospect Journal of Cleaner Engineering and Technology - Impact factor 5.4
2019/8	Pulp and paper mill fly ash: A review Sustainability - Impact Factor 3.9

### **Presentations**

- (2023). Use of Recycled Materials in Sustainable Geotechnical Applications. Technical Talk on " Sustainable Geotechnics" orgaized by Indian Institute of Technology Madras, Chennai, Tamilnadu, India, Chennai, India Main Audience: Researcher Invited?: Yes, Kevnote?: No
- (2022). A Novel Method for Remediation and Protection of Wild-Fire Impacted Forest Soils. UBC Okanagan Postdoctoral Research Day 2022, Kelowna, Canada Main Audience: Researcher Invited?: No, Keynote?: No
- (2022). SOIL STABILITY IMPORTANCE AND SOME RESEARCH INSIGHTS. Expert Talk on "Soil Stability" organized by St. Thomas College of Engineering and Technology, Kannur, Kerala, India, Kannur, India Main Audience: Knowledge User

Invited?: Yes, Keynote?: No

- 4. (2022). Recent advances in the remediation of contaminated soils and hazardous industrial wastes. Faculty development program on "Advanced Soil Reclamation Techniques" organized by Muthoot Institute of Technology and Science, Ernakulam, Kerala, India, Ernakulam, India Main Audience: Knowledge User Invited?: Yes, Keynote?: No
- (2021). Innovative technology for waste-to-value transformation of pulp and paper mill fly ash as a sustainable construction raw material. UBC Okanagan Postdoctoral Research Day 2021, Kelowna, Canada Main Audience: Researcher Invited?: No, Keynote?: No
- (2021). ADVANCES AND PROSPECTS IN SOLID WASTE MANAGEMENT. Career Development Program called "Civil Vibes" on 'Interaction with Industry professionals' organised by Sree Buddha College of Engineering, Alappuzha, Kerala, India, Alappuzha, India Main Audience: Knowledge User Invited?: Yes, Keynote?: No
- Sumi Siddiqua. (2021). Evaluating the potential benefits of untreated wood ash as a stabilizer for low volume roads. 74th Canadian Geotechnical Conference (GeoNiagra 2021), Niagra, Canada Main Audience: Researcher Invited?: No, Keynote?: No
- (2020). Advances in Sustainable Construction Materials and Geotechnical Engineering. Short-term training program "Civil Engineering: Today and Tomorrow, organized by NSS Colleg of Engineering Palakkad, Kerala, India, Palakkad, India Main Audience: Knowledge User Invited?: Yes, Keynote?: No

- 9. Sumi Siddigua. (2020). Formulation of a sustainable geopolymeric binder based on pulp mill fly ash for subgrade stabilization. 73rd Canadian Geotechnical Conference (GeoVirtual 2020), Canada Main Audience: Researcher Invited?: No, Keynote?: No
- (2019). Solid waste characteristics research and resource utilization technology. International Training 10. Program for Faculty and Students from Ghizhou University, PR China, organized by Schulich Executive Education Centre (SEEC), York University, Ontario, Vancouver, Canada Main Audience: Researcher Invited?: Yes, Keynote?: No

### **Text Interviews**

2021/04/08 UBC OKANAGAN RESEARCHERS USING PULP MILL WASTE AS A BINDER FOR ROAD CONSTRUCTION, Science Forum (Science Daily, New Atlas, Pulp and Paper Canada, Intelligent Living, Architecturez South Asia, Industry Europe)

## **Publications**

#### Journal Articles

Saadman Sakib Rahman\*, Sumi Siddigua, Chinchu Cherian. (2023). A Sustainable Approach toSubgrade 1. Stabilization by Utilizing Discarded Fabric Roll-ends toStrengthen Wood-ash Treated Soil: A Circular Textile Economy Perspective. Cleaner Engineering and Technology. Submitted.

Refereed?: Yes, Open Access?: Yes

2. Chinchu Cherian, Dhanalakshmi Padmaraj\*, Dali Naidu Arnepalli. (2023). Assessment of Claylime Reaction Kinetics using Non-destructive Impedance Spectroscopy. Journal of Materials in Civil Engineering. Submitted,

Refereed?: Yes, Open Access?: Yes

- 3. Kianoush Alasvand\*, Sumi Siddigua, Chinchu Cherian. (2023). Thermomechanical properties of rammed earth material treated with wood ash and Portland cement- evaluating effectiveness and interaction. Construction and Building Materials. Submitted, Refereed?: Yes, Open Access?: Yes
- Jaspreet Bring\*; Sumi Siddigua; Chinchu Cherian; David Scott. (2023). Evaluating the performance of wood 4. fly ash and polymer as an environmentally friendly remediation technique for wildfire-impacted forest soils. Sustainability Special Issue "Advances of Sustainability Research: A Canadian Perspective". Submitted. Refereed?: Yes, Open Access?: No
- 5. Dhanalakshmi Padmaraj\*, Chinchu Cherian, Dali Naidu Arnepalli. (2023). Multi-scale Analysis of Carbon Mineralization in Lime-treated Soils Considering Soil mineralogy. Journal of Rock Mechanics and Geotechnical Engineering. Revision Requested,

Refereed?: Yes, Open Access?: Yes

- Sarbesh Sharma\*, Sumi Siddiqua, Chinchu Cherian. (2023). Assessing thermal and mechanical behaviour of pulp mill fly ash and hydrated lime treated rammed earth- comparison with conventional cement treatment. Journal of Building Engineering. Submitted, Refereed?: Yes, Open Access?: Yes
- Saadman Sakib Rahman\*, Siddiqua, S. and Cherian, C. (2022). Sustainable applications of textile waste fiber in the construction and geotechnical industries: A retrospect. Cleaner Engineering and Technology. 6: 100420. Published.

Refereed?: Yes, Open Access?: Yes

 Amin Ajabi Naeini\*, Sumi Siddiqua, Chinchu Cherian. (2021). A novel stabilized rammed earth using pulp mill fly ash as alternative low carbon cementing material. Construction and Building Materials. 300: 124003. Published,

Refereed?: Yes, Open Access?: Yes

 Chinchu Cherian, Sumi Siddiqua. (2021). Engineering and environmental evaluation for utilization of recycled pulp mill fly ash as binder in sustainable road construction. Journal of Cleaner Production. 298: 126758. Published,

Refereed?: Yes, Open Access?: Yes

- Sumi Siddiqua, Amin Bigdeli\*, Chinchu Cherian. (2020). Effect of pore fluid pH on the collapse behaviour and microstructural evolution of a loess. Environmental Geotechnics. 10(4): 278-288. Published, Refereed?: Yes, Open Access?: Yes
- 11. Chinchu Cherian, Sumi Siddiqua. (2019). Pulp and paper mill fly ash: A review. Sustainability. 11(16): 4394. Published,

Refereed?: Yes, Open Access?: No

 Chinchu Cherian, Nikhil John Kollannur, Sandeep Bandipally\*, Dali Naidu Arnepalli. (2018). Calcium adsorption on clays: effects of mineralogy, pore fluid chemistry and temperature. Applied Clay Science. 160: 282-289. Published,

Refereed?: Yes, Open Access?: Yes

 Sandeep Bandipally\*, Chinchu Cherian, Dali Naidu Arnepalli. (2018). Characterization of lime-treated bentonite using thermogravimetric analysis for assessing its short-term strength behaviour. Indian Geotechnical Journal. 48: 393-404. Published, Refereed?: Yes, Open Access?: Yes

#### **Book Chapters**

 Chinchu Cherian, Sumi Siddiqua, Dali Naidu Arnepalli. (2022). Utilization of Recycled Industrial Solid Wastes as Building Materials in Sustainable Construction. Advances in Sustainable Materials and Resilient Infrastructure. : 61-75.

Published, Springer Singapore, Refereed?: Yes

### Thesis/Dissertation

- Evaluation of Lime Stabilization Mechanisms in Fine-Grained Soils from The Chemico-Mineralogical Perspective. (2018). Indian Institute of Technology, Madras. Doctorate. Number of Pages: 200 Supervisor: Dali Naidu Arnepalli Contribution Percentage: 91-100
- A knowledge-based decision support system for the selection of ground improvement techniques. (2012). National Institute of Technology Calicut. Master's Thesis. Number of Pages: 120 Supervisor: Sankar N Contribution Percentage: 91-100
- A comprehensive design and analysis of green building technology for commercial construction. (2010). Mahatma Gandhi University. Bachelor's. Number of Pages: 110 Supervisor: Praveen Mathew Contribution Percentage: 51-60

### Reports

- 1. Amin Ajabi Naeini\*, Chinchu Cherian, Sumi Siddiqua. (2021). New Rammed Earth Construction Technology Using Pulp Mill Fly Ash as Alternative Low Carbon Cement. 10. Innovative Earth Inc.
- 2. Chinchu Cherian, Sumi Siddiqua. (2021). Use of Pulp Mill Residues as Sustainable Construction and Geotechnical Materials. 24. Domtar Pulp Mill Kamloops.
- 3. Jaspreet Bring\*, Chinchu Cherian, Sumi Siddiqua. (2021). Combined effect of wood ash and AggreBind Polymer on the hydro-mechanical properties of wildfire-impacted forest soils. 6. AggreBind Inc. USA.
- 4. Saadman Sakib Rahman\*, Chinchu Cherian, Sumi Siddiqua. (2020). Sustainable approach for utilizing textile waste as reinforcement in wood ash treated soil. 7. Fabcycle.

#### **Conference Publications**

- Sarbesh Sharma\*, Sumi Siddiqua, Chinchu Cherian. (2023). Exploring the thermo-mechanical characteristics of modified rammed earth with pulp mill fly ash and hydrated lime stabilization. Proceedings of GEOSaskatoon 2023 Conference. GEOSaskatoon 2023, Saskatoon, Canada, Conference Date: 2023/9 Paper Published Refereed?: Yes, Invited?: No
- Kianoush Alasvand\*, Sumi Siddiqua & Chinchu Cherian. (2022). Thermal characteristics of rammed earth stabilized using cement, fly ash, and bentonite. Proceedings of GEOCalgary 2022 Conference. GEOCalgary, Calgary, Canada (1-6), Conference Date: 2022/10 Paper Published Refereed?: Yes, Invited?: No
- Mahmoud Babalar\*, Sabrina Samreen Islam\*, Sumi Siddiqua, & Chinchu Cherian. (2022). Characterization of spent bentonite recovered from winery waste to assess its recycling potential. Proceedings of GEOCalgary 2022 Conference. GEOCalgary 2022, Calgary, Canada (1-8), Conference Date: 2022/10
  Paper
  Published
  Refereed?: Yes, Invited?: No

- Amin Ajabi Naeini\*, Sumi Siddiqua, & Chinchu Cherian. (2021). Developing a novel building material for sustainable rammed earth construction using wood ash-geopolymer as an alternate binder. Proceedings of GEONiagra 2021 Conference. GeoNiagra 2021, Niagra, Canada (1-8), Conference Date: 2021/9 Paper Published Refereed?: Yes, Invited?: No
- Saadman Sakib Rahman, Sumi Siddiqua, & Chinchu Cherian. (2021). Sustainability Assessment of Assorted Textile Waste as Reinforcement in Wood-ash Treated Soil: An Expansion in the Horizon of Circular Textile Economy. Proceedings of GEONiagra 2021 Conference. GeoNiagra 2021, Niagra, Canada (1-8), Conference Date: 2021/9

Paper Published Refereed?: Yes, Invited?: No

- Chinchu Cherian, Sumi Siddiqua. (2021). Evaluating the potential benefits of untreated wood ash as a stabilizer for low volume roads. Proceedings of GEONiagra 2021 Conference. GeoNiagra 2021, Niagra, Canada (1-7), Conference Date: 2021/9 Paper Published Refereed?: Yes, Invited?: No
- Jaspreet Bring\*, Sumi Siddiqua, Chinchu Cherian. (2020). Developing a sustainable post-fire soil restoration technique using pulp mill fly ash. Proceedings of GEOVirtual 2020 Conference. GeoVirtual 2020, Virtual Conference due to COVID-19, Canada (1-8), Conference Date: 2020/9 Paper Published Refereed?: Yes, Invited?: No
- Chinchu Cherian, Sumi Siddiqua. (2020). Formulation of a sustainable geopolymeric binder based on pulp mill fly ash for subgrade stabilization. Proceedings of GEOVirtual 2020 Conference. GeoVirtual 2020, Virtual Conference due to COVID-19, Canada (1-8), Conference Date: 2020/9 Paper Published Refereed?: Yes, Invited?: No
- Chinchu Cherian, Dali Naidu Arnepalli. (2019). Re-appraisal of the physico-mechanical stability of lime treated soils. Ground Improvement Techniques and Geosynthetics: IGC 2016 Volume 2. Ground Improvement Techniques and Geosynthetics: IGC 2016, Chennai, India (177-184), Conference Date: 2016/12 Paper Published Refereed?: Yes, Invited?: No