

# Archana M. Ghodeswar

Post doctoral Research Associate  
MEERA Group, ORNL, TN.

[ORNL staff profile](#)

[ghodeswara@ornl.gov](mailto:ghodeswara@ornl.gov)

[LinkedIn profile](#)

[University profile](#)

Ph.no. (678)768-2402

---

<b>EDUCATION</b>	Postdoc (CHP, ORNL)- <i>In progress</i> . Supervisor: <a href="#">Mahabir Bhandari</a>	<b>Oct. 2022</b>
	Ph.D. (Economics), Minor: Public Policy Advisor: <a href="#">Matthew Oliver</a> Georgia Institute of Technology, Atlanta, GA	<b>August 2022</b>
	<a href="#">Thesis</a> title: “Essays on Environmental, Fiscal, and Demand-Side Policies in Electricity Markets”	
	Masters (Economics) Georgia Institute of Technology, Atlanta, GA	<b>2019</b>
	Masters in Power Systems Government College of Engineering, Aurangabad(MR), India	<b>2011</b>
	Bachelor Electrical, Electronics and Power Engineering Government College of Engineering, Aurangabad(MR), India	<b>1998</b>
<b>RESEARCH AREAS</b>	Energy and Environmental Economics, Power systems, Sustainable Energy Systems, Environmental Justice, Public policy	
<b>PROFESSIONAL EXPERIENCE</b>	Maharashtra State Electricity Distribution Company Limited, India	
	<b>A) Executive Engineer/Operations &amp; Maintenance (Division Head)</b> Planned and executed a critical 33KV ring main system for all 33/11KV substations, leading the team to initiate measures reducing distribution energy loss from 15% to 13.5%.  Designed and implemented innovative initiatives to reduce revenue arrears by 10% from Rs. 32.3 million to Rs. 29.4 million.  Conducted an extensive energy audit for a 0.5 MW plasma power plant, suggesting key corrective measures in the detail energy audit report resulting in a 40% decrease in energy loss.  Responsible for the net metering and billing of consumers turning to prosumers. Maharashtra was the first state in India to implement such a project where I played an important role in the initial stage in 2016.	<b>2009-16</b>
	<b>B) Assistant Engineer (Transmission &amp; Distribution utility)</b> Analyzed operational needs and developed strategic solutions for purchasing goods and services for the HVDC terminal while maintaining budget constraints.  Responsible for operation and maintained 500 miles of optical fibers communication network, and the advance tools and equipment for efficient transmission of data signals.	<b>2005-09</b>

<b>PUBLISHED PAPERS</b>	Trading one waste for another? unintended consequences of fly ash reuse policy in the Indian electric power sector : job market paper published Energy Policy : joint with Matthew Oliver. ( <a href="#">website link to published paper</a> )	<b>2022</b>
<b>WORKING PAPERS</b>	Quantifying the economic costs of power outages due to natural disasters: a systematic review: joint with <a href="#">Mahabir Bhandari</a> and <a href="#">Bruce Hedman</a>	<b>2023</b>
	Assessing the Efficacy of Environmental Justice Tools in the Clean Energy Transition: A Case Study of the Social and Economic Impacts of Abandoned Coal Mines: joint with <a href="#">Corsair Hope</a>	<b>2023</b>
	Barriers and opportunities for Industrial Energy Efficiency and Decarbonization in the US: A Systematic Review: joint with <a href="#">Abbas Ahmad</a> , <a href="#">Subodh Choudhary</a> , <a href="#">Thomas Wenning</a> .	<b>2023</b>
	Do Coal Plant Closures Serve Environmental Justice to Black Communities? Health Outcomes from a Natural Experiment : joint with <a href="#">Marilyn Brown</a> (Draft ready for publication)	
	The relationship between utility policies and investments in residential distributed renewable energy: joint with <a href="#">Evgeniya Tsybina</a> , ORNL.	
	Which Financial Factors Improve the Performance of Electricity Distribution Utilities? Evidence from India: joint with <a href="#">Usha Nair-Reichert</a> and Matthew Oliver ( <i>Included as thesis 's 2nd chapter- ready to send for publication</i> )	<b>2020</b>
	Energy economics of internet of things (IoT): Analysis of survey data from Ireland ( <i>Included as thesis 's 3<sup>rd</sup> chapter</i> )	<b>2021</b>
<b>WORK IN PROGRESS</b>	Impact of societal factors on under five years child mortality collaborated with <a href="#">Dr.Smita Pakhale</a> , and <a href="#">Preshit Ambade</a> , Ottawa Hospital Research Institute- ( <i>ready to send for publication</i> )	<b>2019</b>
	From global to local- defeating energy poverty- The Atlanta beltline case- <i>expansion stage</i> ( <a href="#">website link to paper</a> )	<b>2019</b>
	Consumer dynamics and responsiveness to the adoption of new technology in the State electricity sector: joint with Usha Nair-Reichert, and Anjali Thomas <i>Survey stage</i>	<b>2019</b>
<b>RESEARCH EXPERIENCE</b>	<b>Research Assistant</b>	
	Contributing to a project with <a href="#">Marilyn Brown</a> to perform the causal analysis of the high energy burden of black households in Georgia, US and policy recommendations; funded by Sierra Club. I am looking at impact of pollution from coal power plants on health of across races in Georgia.	<b>2022</b>
	Patents and copyrights with Usha Nair-Reichert	<b>2017</b>
	Consumer behavior, efficiency and sustainability in India's power sector, Strategic Energy Institute with Usha Nair-Reichert, and Anjali Thomas	<b>2018</b>
	Use of fly-ash in the construction of solar power plant, and for manufacturing electrically insulated paints” : Common Facility Center, India	<b>2014</b>

	Economics of Utilization of Fly Ash in the Construction of Solar Power Plants: Laboratory research results that I presented in the international seminar on emerging building and construction technologies in March 2016 at New Delhi. The conference was arranged by the Ministry of Housing and Urban Poverty Alleviation, Government of India. ( <a href="#">website link to paper</a> )	<b>2016</b>
<b>SKILL SETS</b>	Techno-economic analysis, Policy analysis, Cost benefit analysis, Econometric analysis, Analytical skills	
<b>COMPUTER SKILLS</b>	Statistical software – <b>Stata</b> (proficient), <b>R</b> (moderate) , <b>Python</b> (beginner) Data visualization and Analytical Tool - <b>Tableau</b> Remote sensing and <b>GIS</b> ( <a href="#">latest work</a> ) using R	
<b>PAPER PRESENTED</b>	31 <sup>st</sup> Ivan Allen College CRIDC Conference, Atlanta, GA	<b>2020</b>
	88 <sup>th</sup> International Atlantic Economic Conference, Miami, FL	<b>2019</b>
	32 <sup>nd</sup> Ivan Allen College CRIDC Conference, Atlanta, GA	<b>2021</b>
<b>HONORS AND AWARDS</b>	<a href="#">Essay competition</a> runner-up in the Ivan Allen College CRIDC Conference in Atlanta- Second award, \$1000.	<b>2021</b>
	Winner of “ <a href="#">Energy Case Competition</a> – 2020 Southeastern Energy Conference” - “Case presentation on strategies to alleviate energy poverty along Atlanta beltline”	<b>2020</b>
	Passed LEED Green Associate Exam (Leadership in Energy and Environmental Design) conducted by USGCB	<b>2019</b>
	3MT <a href="#">Thesis Competition</a> ” finalist- “Industrial Ecology: Alert today, Alive tomorrow”	<b>2019</b>
	Chhatrapati Shahu Maharaj Overseas Scholarship”, Government in India- \$173,250. (spread in four years)	<b>2016</b>
	Best Government Officer Award”, Chandrapur District Journalist Association	<b>2015</b>
	<a href="#">India Power Award-2014</a> , National Council of Power Utilities, India for <a href="#">Best woman’s contribution to power sector</a>	<b>2014</b>
<b>PROFESSIONAL TRAINING</b>	Feeder Energy Management System Training, India Environment Awareness & Management Training, India Demand Side Management Training, India Solar Power Generation Avenues in India- Technical & Financial Feasibility Training, New Delhi Revenue Management & Loss Reduction Training, India Network Information Management System Training, India	<b>2009-2016</b>

**ONLINE  
COURSES**

FME Desktop: Data Translation for AEC ...by Gordon Luckett on LinkedIn Learning	<b>2022</b>
Tableau Essential Training ... by Curt Frye on LinkedIn Learning	<b>2022</b>
Critical Thinking and Problem Solving ... by Eric Zackrison and Madecraft on LinkedIn Learning	<b>2022</b>
QGIS & Google Earth Engine for Environmental Applications Google Earth Engine for Machine Learning & Change Detection using R ...by Kate Alison on Udemy	<b>2021</b>
Energy Within Environmental Constraints ...by David Keith, HarvardX- ENGSCI137x – EdX	<b>2020</b>
Tableau 20 A-Z and Advance for data science- ... by Kirill Eremenko on Udemy	<b>2018</b>

---