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GHANTA RAM SAI AVINASH

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ACADEMIC QUALIFICATION

MSc – Sustainable Energy Technology at University of Twente, Netherlands (Sept 2021-2023).
Bachelor of Technology (B. Tech) (Mechanical Engineering) at VIT University, Vellore; India, May 2019.

WORK EXPERIENCE

Master Thesis Intern, Energy Grid Strategy, STEDIN, Netherlands – Full Time (Present)

- Development of Hybrid Heat Pump prediction model for Sustainable Central Heating
- Electricity Grid low voltage regional distribution strategy & Asset Management

R&D Intern (Energy Management) at Royal KaaK, Netherlands – Full time (Sept 2022 – Jan 2023)

- Optimization of Energy Seasonal & Daily Storage for Electrical Oven Industrial Heating
- Integration of Buffer Thermal storage with Redox Flow, Li-Ion , TES Material Analysis
- Technological Investigation of Battery Energy Storage – Li-Ion LCA & cell performance

R&D – Calibration & Testing Engineer, Mikuni Corporation, Tokyo (June 06, 2019 – Jan 01,2021)

- Performed base tuning for BS4-BS6 vehicles with E- carburetor, fuel injection , Battery Housing
- Laboratory systems in charge for vehicle Testing – chassis diagnosis automation control (VFD)

INTERNSHIPS

Energy Voices & Future Thoughts Community Developer, illuminem, Paris (Aug 2022 – Oct 2022)

- Publishing Scientific Articles from Top Notch Energy Organizations & ESG Alliance Collaborations & Techno-Market Analyst (Energy Consumptions EU, Renewables)

Research Intern, Indian Institute of Technology, Indore (June 05 – July 09, 2018)

- Development of an Algorithm code in MATLAB for the split spray macroscopic characterizations at high injection pressures using Shadowgraph analysis at Spray and Combustion Laboratory.

Research Assistant, Battery & Green technologies research center, VIT University

- Study of Bismuth coated reduced graphene oxide as a cathode for enhancing microbial fuel cell. The RGO-bismuth coated Electrochemical Materials for Battery Storage

ACADEMIC PROJECTS (Post Graduation)

Seasonal Lithium + Hydrogen Storage design - Gatwick Airport Energy Generation with PV Brief Description:

- The integration was made by Lithium Ion & Alkaline electrolysis cell with a PEM fuel cell storage system at peak power of 70 MW electrolyzer and 30 MW fuel cell at energy storage capacity of 55 GWh – Sesaonal Storage & Daily Storage
- The Analysis of Electrochemical process and material cell chemistry and kinetics – Li / H2

Lithium & TCM storage design for 1 family house (Spain) – 80 % PV electricity
Brief Description:

- The Assessment has been made with Lithium storage Iron Oxide technologies (Electrochemical & Thermochemical energy storage technologies for meeting 9.59 kWh/day electricity and 25.01 kWh/day heat demand
- Lithium Iron Oxide & Cathode / Anode material electrical analysis for generating Energy profile

Design of PV-Hydrogen off grid system for achieving Industrial Net- CO2 Zero value chainBrief Description:

- The investigations were carried out with different PV-Hydrogen on grid / off grid hybrid systems (Electrolyzer and Fuel cells) & Short term Li-Ion battery storage
- The assessments were made with PV-Hydrogen (25% off grid, 75% off grid + 25% on grid, 50% off grid + 50% on grid, 25% off grid+ 75% on grid and PV-Hydrogen 100% on-grid systems.

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JOURNAL PUBLICATIONS (Under Graduation)

Journal: Raja Sekhar, I., Mahbubul, M., Avinash, G.R.S., Vaibhav, V. **Experimental study and Exergy Analysis of Drying Kinetics for Zingiber Officinale using Solar Tunnel Dryer with Thermal Energy Storage.** Solar Energy. Technol., ISSN – 0038-029X, Elsevier, 2021.
Citation: Research has been incorporated with Dhaka University of Engineering & Technology, Bangladesh
DOI: https://doi.org/10.1016/j.solener.2021.08.011

Journal: Avinash, G.R.S., Kavitha, C., Ashok, B., Vignesh, R., Venkat, V. and Karthickeyan, V., 2020. **Study of diesel fuels multiple injection characteristics using shadow-graphic technique with CRDI system in constant volume chamber.** Fuel, 279, p.118436.
Citation: Presented in 4th International Conference of Alternative Fuels, Energy & Environment series ICAFEE 2019, Feng chia University, Taiwan and Published in FUEL – Journal, Elsevier, 2020.
DOI: https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.1016%2Fj.fuel.2020.118436

Journal: Avinash, G.R.S., Vaibhav, V.
Experimental Investigation into effects of addition of Aluminum oxide on Performance, Combustion and Emission characteristics of Pongamia Biodiesel blends in CI engine. IJMPERD, Vol 9, ISSN (P) 2249-6890; ISSN (E) 2249-8001, 2019.
Citation: Presented in APOGEE 2019 reality roulette technical conference presented by L&T, BITS Pilani, Rajasthan and Published in International Journal of Mechanical and Production Engineering Research & Development – IJMPERD, SCOPUS Indexed, 2019.
DOI: https://www.academia.edu/download/61499886/4IJMPERDDEC2019420191212-130099-jhu32b.pdf

AWARDS & ACHIEVEMENTS

- Honor of Achievement Award for Successful enrollment of Mikuni India Code of Business Conduct and Ethics, Neemrana, Rajasthan, **2019**
- Appreciation award for Table Topic Event conducted my Toastmasters International, Technology Tower (TT), VIT Vellore, **2018.**
- Secured 4th Position in Techno War conducted during the International Sports and Cultural Festival – Rivera, VIT Vellore, **2017**
- 3rd Team to be Qualified from ASIA for the International racing – Formula Student Italy (FS ITALY),; Role – Associate Marketing Manager (Business Plan), Team Pit Member; **2017**
- Secured 2nd Position in Formula Green Racing, Coimbatore, India, National SAE Motorsport racing Role- Team Core Committee Member (Tech Marketing & Sponsorship Lead), **2016**
- Emergent Event coordinator at Student Led Design Conference (SLDC) – ASME (American Society of Mechanical Engineering, VIT Vellore, **2016.**

CERTIFICATIONS & Skills

- MS excel, MS word, Tuning, CATIA V5, ECU Tuning & Remapping, MATLAB, Client Communication, Leadership, Information system design, Management, Marketing, Team building, Networking, Aspen plus, Simulation, Automation.

LANGUAGES

- Telugu (Native proficiency), English (Professional proficiency), Hindi (Working proficiency)

CO-CURRICULAR ACTIVITIES

- Event coordinator – Sustainability transformation symposium 2021, University of Twente, Netherlands
- Event coordinator – Sustainability Series / Green Talks 2022, University of Twente, Netherlands
- Associate Marketing Manager at Team Ojas – Formula Student Electric Racing Team, VIT University, Vellore, 2017-2018, Events – FS Italy, FS Green Coimbatore.
- Technical Event Coordinator at ASME workshop, Gravitas, VIT University, Vellore, 2017
- Core Committee Member at Chapter – American Society of Mechanical Engineering (ASME), VIT University, Vellore, 2016-2017
- Served as People's Tutor for a Social Welfare Event at an NGO – FEPSI, Vellore, 2016