

Rama Kumari

Exceptionally focused and skilled Chemical/Environment Engineer, with experience in various chemical and environment engineering researches and development projects, including a patent published in The USA and India recently. Demonstrate quick learning and adaptability, strategic planning, analytical thinking, creativity and time management. Confident in being able to generate superior results for an organization. Able to multitask effectively in handling high-pressure and crisis work situations.

Professional experience

R & D Engineer (Jul'15 – Mar'18)

Aqua works Pvt. Ltd., Bangalore

Group of Filtrex Technologies Pvt. Ltd. (A Marmon Water/Berkshire Hathaway Company)

- Responsible for research activities for developing carbon base filter media for water and air purification.
- Performance validations of existing and new developed water filtration carbon blocks according to the NSF/ANSI standards.
- Development and optimization of test protocol for air filter media for breakthrough time.
- Testing, characterizations of raw carbon, surface modified carbon and catalytic carbon.
- Developing and maintaining a detailed Control Plan to guide product manufacturing.
- Use of variety of Instruments and equipment to produce, characterize and analyze new effective products.
- Improvement in existing products according to feedback of the clients.
- Apply chemical engineering concepts and technological knowledge for the enhancement of the product.
- Responsible for the quality control of products.
- Producing products developed with greater efficiency.
- Providing cost effective solution of producing efficient products.

Patents:

- i. Patent for "*Modified Activated Carbon for Adsorption of Airborne Formaldehyde and Method for Making the Same*" published in The United States of America, Publish No. US 2019/0351388 A1 dated November 21, 2019.
- ii. Patent for "*Modified Activated Carbon for Adsorption of Airborne Formaldehyde and Method for Making the Same*" published in India, Publish No. IN201821018724A dated November 22, 2019.
- iii. Patent for "*Surface Modified Carbon for Filtration Applications and Process for Making the Same*" has been filed with application number US 15/884,809.

Projects:

- i. Development of carbon-based air filter media for removal of ABEK class gases and organic vapors.
- ii. Development of carbon filters media for indoor air purifiers.
- iii. Removal of Fluoride and arsenic from drinking water by adsorption on catalytic carbon.

- iv. New material development for removal of contaminants like chloramines, lead and nitrates from drinking water.
- v. Development of photo-catalytic materials for pharmaceutical wastes.

Graduate Apprentice Trainee (May'14 – May'15)

Dielectric Material Division

Central Power Research Institute, Bangalore.

- Testing, characterization analysis and interpretation of results of insulating fluids for power equipments such as Transformer oil according to Indian and International standards.
- Responsible for the characterization of new oil and oil in service by conducting of physical and chemical test like Tan Delta, Resistivity, Di-Electric Constant, Interfacial Tension, Break down Voltage, Flash point, Neutralization Value and dissolved gas analysis.
- Quality system implementation as per ISO/IEC.
- Documentation (Compliance matrix, Qualification Test Plans/Reports, Test procedures etc.), samples preparation, testing, consolidating test results and making out inferences.
- Determination of hazardous Polychlorinated Biphenyls PCBS content in insulating oils.

Experience in Academics

Head – Department of Chemical Engineering (Jun'18 – Aug'19)

Krishna Institute of Engineering and Technology, Jambuda

- Lectures include subjects in petroleum refining and petrochemical technology, Polymer Technology, Chemical Reaction Engineering, Chemical Process Technology, Utilities and Instrumentation, Industrial Stoichiometry and Chemical Engineering Drawing
- Weekly 20 lectures with all 3 years
- Conducting practical classes for 3rd and 5th Semester
- Conducting GTU examinations (internal and external) and regular monthly tests

Academic Qualification

M. E. in Environmental Management – 2019-21

CPI – 8.28

L D College of Engineering, Ahmedabad.

B. Tech. in Chemical Engineering – 2009-13

Pass percentage – 77%

Sathyabama University, Chennai.

Academic Project

1. Assessment of Spatio-Temporal Variability of Net Primary Productivity using Geospatial Input (M.E. undergoing project)
Mapping the Net Primary Productivity over India during the period 2001 to 2019 using geospatial input. Trend analysis of Net primary productivity using statical tool. Study area is India. MODIS (Moderate Resolution Imaging Spectro-radiometer) satellite data is used for the study. Processing of collected NPP imagery data through mapping and analytics software ArcGIS.
2. Production of Piperidine (1000 TPA)(B.Tech)
This project deals with the study of the production of Piperidine. It deals with various methods of production and selecting the best out of them. It also contains the flow diagram, material

balance, energy balance; design of equipments used in production, economics, plant layout design, safety aspects of Piperidine production and complete details about the manufacturing process.

Key Strength

Hardworking and sincere with commitment to deliver the best. Very much eager to learn and grow quickly, with an ability to lead and delegate the team.

Personal Information

Date of Birth	:	25 th Dec 1991
Gender	:	Female
Languages known	:	English, Hindi and Maithili
Hobbies	:	Reading, listening music and net surfing
Correspondence Address	:	A35, Sugam Apartments, Near Aggrawal Towers, Anand Nagar Cross Road, Ahmedabad – 15. Gujarat