Job profile - Sr. Analyst, RTM

- **Develop effective solutions by understanding the technical objectives and product requirements.**
- **Identify and evaluate insufficiencies and recommends optimal solutions.**
- **Participate in the development process throughout lifecycle.**
- **Influence the design of innovative solutions using new technologies.**
- **Ensure the conceptual completeness of the technical solution.**
- **Formulate and document technical requirements.**
- **Create prototypes and supports initial development and testing.**
- **Interpretation and analysis of environmental RTM data**
- **Management and handling of the large volume of industrial Real-Time monitoring data**
- **Real time video monitoring and capable to manage record of live event at industries location**
- **Site and Remote Calibration check of Real Time monitoring Instruments.**
- **Industry visit for technical audit of RTM Instruments.**
- **Analysis of Environmental Data**
- **Cross departmental technology solutions.**
- **Highly complex tasks, projects/programs or support issues that involve a high degree of risk, impacts business unit performance and makes use of the individual's high level of knowledge.**
- **innovation, design and selection of new technologies to support ESC.**
- **Experience with cloud-based products, Server architecture, Network Designing.**
- **Management, handling and interpretation of environmental pollution data.**
- **Exposure to real-time pollution monitoring instruments and their diagnostic features.**
- **Awareness on environmental norms on air pollution, water pollution etc.**
- **Collaborate with the internal or external team during the problem resolution process.**
- **Design and Conceptualization of awareness programmes for citizens through mobile App and other media.**
- **Experience in the design, implementation, management and maintenance with one or several of the leading cloud platforms**
- **Experience in the field of Management information system and Data mining.**
- **Assessment of RTM technology based on specific requirement.**

Job profile - Sr. Analyst, RTM (Cont'd.)

- Coordination with State or National environmental agencies.
- Experience with cloud-based products, Server architecture, Network Designing.
- Network/Hardware
- \Servers, Routing Protocol, Routers, Switches, Firewall, NAS, SAN, PCs, Gateway PCs, Video Conference Solutions architectures
- Technical Coordination with National Informatics centre, MAP_IT, State Data Centre etc. for Central Server and other project activities.
- Evaluate product based on ESC's requirement and vendor identification.
- Perform Remote Calibration check of environment RTM systems.
- Support Industries on the subject of data communication protocols, IP Camera protocol, installation guideline and connectivity with ESC.
- Troubleshoots technical issues and makes recommendations regarding their resolution.
- Identify, analyze and recommend processes, procedures, and work practices best suited to the online real-time monitoring activities.
- Release prototype for AI-based Industry video surveillance.
- Design Solution on drone-based City Ambient Monitoring.
- Submit Solution for Industrial area Pollution Video Surveillance
- Design CBWTF end to end monitoring solution.
- Design Pollution Awareness program for citizens, based on the new technique of influencer marketing.

Job profile - Data Scientist

All kind of data obtained from IT solutions used in environmental assessment is evaluated by data scientist. ESC Data scientist proactively fetches information from various sources of Real-Time Monitoring of the different ROs, City Stations and analyzes it.

The Big data scientist is 20% scientist, 70% software engineer, and 10% hacker, which is why the definition of the job becomes convoluted. Usually, it's considered normal to bring people with different sets of skills into the data science team. Statistical analysis, Trend Analysis of Ambient, Emission, Effluent and Biomedical waste are few of major interpretations done by data scientist in ESC.

Discovering the information hidden in vast amounts of environmental data, and making smarter decisions to deliver even better solution products. Primary focus is on applying data mining techniques, statistical analysis, and building high-quality prediction systems integrated with our Central Server Application, Mobile APP and other reporting dashboards.

Selecting features, building and optimizing classifiers using machine learning techniques to drill into the Analyzers to fetch the right information.

- Keeping a continuous check on the data which is fetched from different industrial inputs.
- Data mining using state-of-the-art methods to generate the various trend of City Ambient.
- Enhancing environment data collection procedures to include information that is relevant for building analytic systems.
- Processing, cleansing, and verifying the integrity of environment data used for analysis.
- Ad-hoc analysis and presenting environment trends in a clear manner.
- Creating Industry data anomaly detection systems and constant tracking of Industry performance
- CEMS, CAAQMS, CEQMS performance Evaluation (Remote Calibration)
- Trend Analysis of Real-time Noise and Ambient Monitoring station.
- Industry Data Validation for AQI analysis of the Industry town and trend

Job profile - Software Developer

- Implement responsible web design principles to ensure that ESC/ERC website renders well across multiple devices
- Design a framework for creating user apps that grow with the needs of the MPPCB
- Monitor website performance, watch for traffic drops related to site usability problems and rectify the issues
- Review app and feature coding and plan future website upgrades with the Programmer
- Assist in the development of Environmental applications and features that will be put on the website and in internal functions as well
- Determining the structure and design of ESC/ERC web pages.
- Ensuring user experience determines design choices.
- Developing features to enhance the user experience.
- Striking a balance between functional and aesthetic design.
- Ensuring Application and website design is optimized for smartphones.
- Building reusable code for future use.
- Optimizing Applications for maximum speed and scalability.
- Utilizing a variety of markup languages to write web pages.
  Website Development
- Central Server Software Management
- Encryption Keys generation on Central server for Industry.
- Industry Sites integration on CSS
- Generate the encryption keys(AES and RSA) along with other essential details for connectivity with CSS.
- Manage the AQI displays on various locations like Board Website, Board Mobile APP, All the display panels in Madhya Pradesh.
- Troubleshooting of Central server related connectivity issues
- reconfiguration of the ambient station of the Industry (whichever shifted in the city)on CSS and restructured the logical configuration along with the data routing path.
- Graphic Designing
- Audit Industry data
- Office Automation
- Management, handling and interpretation of environmental pollution data.
- Exposure to real-time pollution monitoring instruments and their diagnostic features.
- Responsible for Noise Station connectivity with MPPCB Central Server Software.
- Responsible for New City CAAQMS Station connectivity with MPPCB Central Server Software.
- Responsible to manage Central server application and Industry L-1 Support for Central server application.
- Extend support to Programmer for any new Module front end development
- O&M of Website
- O&M of Survillence System Software
- O&M of AQI Acquisition software

Job Profile - Database & Network Support

- The programmer's job is to create internal software programs for environment Real-Time Monitoring. Software Development is a continuous process of Maintaining the application and maintaining the Database so that data and information are easily accessible to the users.
- Work with Software developers to design algorithms and flowcharts
- Produce clean, efficient code based on specifications
- Integrate software components and third-party programs
- Verify and deploy programs and systems
- Troubleshoot, debug and upgrade existing software
- Gather and evaluate user feedback
- Recommend and execute improvements
- Create technical documentation for reference and reporting
- The Programmer is responsible to manage Central server Application data on a regular basis because if the pool of data grows in volume then accumulating this data will become very much complex and the entire application and Server can crush.
- Code and test programming for in-house software programs
- Debug code for existing programs based on immediate need
- Conduct end-user training upon developed software
- Respond to Industries and other stakeholders for tech support requests.
- Implement systems in an in-house production environment
- Troubleshoot system bugs and issues
- Ongoing development of artificial intelligence-based video surveillance system for Industry Real-Time Monitoring.
- O&M of Central Server Software
- O&M of Mobile APP
- O&M of STP Dashboard

Job profile - MIS Executive

- Evaluation of real-time monitoring data of all regional office jurisdictions, city stations, industries. Excellent knowledge of MS Excel.

- Preparation of daily/weekly/monthly reports using intermediate/advanced excel.

- Present reports on operational metrics, operational data and AQI analysis, and a summary of findings to management in a clear concise concrete and actionable format.

- Regional Office Jurisdiction capable of handling and managing   large amounts of industrial real-time monitoring data.

- Ability to create graphs and tables, use spreadsheets efficiently, and perform calculations and automation to process large amounts of data.

Job profile - Network & System Integrator

- Conducting industry visits to audit high severity issues related to real-time monitoring in industries, as directed by the Environment Monitoring Centre or to address issues raised by senior leadership.

- Conducting Remote Calibration and Testing of their RTM system for analysis of industry environment.

- Technical assistance to industries on the subject of IP cameras and choosing the right place for their installation and adopting the right guidelines.

- Basic troubleshooting and support from ESC RTM technical team for any major issues.

- Experience with cloud-based products, server architecture, network designing, document social sharing platforms