TATA CONSULTANCY SERVICES

H-1B Project Role Description (Version 01-12-2017)

|  |  |
| --- | --- |
| **Employee Name** V KRISHNANJANEYULU CH | Employee No 580289 |

|  |  |
| --- | --- |
| **Project Name** | CITI GROUP NA |
| **Project ID#** (if applicable) | 800085707 |

|  |  |
| --- | --- |
| Client Name & Address: Citigroup,  6400 LAS COLINAS BLVD,  IRVING,  TX - 75039  USA | **Project Site & Physical Street Address:**  Citigroup,  6400 LAS COLINAS BLVD,  IRVING,  TX - 75039  USA |

**1. Please list a few of the core technologies, languages, software and systems that the TCS associates will be working with/on:**

**Software used**

Eclipse IDE for Java EE, IBM WebSphere, PL/SQL Developer, Visual Studio Code, Android Studio, Sublime text, Brackets, MS Visio, IBM RTC, Rally and TFS, Putty, IBM Mainframe, Pivotal Cloud Foundry Interface, SOAP UI 5.4, HP Application Life Cycle Management, Secure Assist

**Languages used**

Angular, Java J2EE, HTML 4/5, JavaScript, CSS3, , JQuery, Node.JS, AJAX, Typescripts, JSON, Junit and Espresso.

**TCS Employee’s specific DUTIES within the project**

V Krishnanjaneyulu Ch will be involved in the following duties:

|  |  |
| --- | --- |
| **Job Duty** | **% Of Time Spent on Duties** |
| Requirements Planning, Gathering, Documentation and Analysis | 10% |
| Analysis/Design & Development of User interface and Business Tier | 15% |
| Develop solutions based on requirements and preparing development plans | 10% |
| Create code as per identified solution | 25% |
| Unit Testing and Production Migration, production support | 10% |
| Logging and tracking of bugs found in the application in RTC and ALM | 10% |
| Coordinate with User Acceptance Testing teams and Production, defect fixing | 5% |
| Tracking events, project metrics, Task scheduling | 5% |
| Carry out Quality assurance activities (reviews, walkthroughs etc.) as defined in the Project Plan | 5% |
| Reporting the status to Management and maintain system documentation | 5% |

**2. Client description:**

Citigroup is the first financial services company in the U.S. to bring together banking, insurance, and investments under one umbrella. Its 300,000 employees manage 200 million customer accounts across six continents in more than 160 countries.

Citigroup is largely organized into five groups: Citigroup Global Consumer Group, the Global Corporate and Investment Banking Group, Citigroup Global Investment Management, Citigroup International, and Smith Barney.

The Citigroup Global Consumer Group businesses comprise the financial service sector’s most diverse consumer product offerings — banking services, credit cards, loans and insurance.

Major brand names under Citigroup's trademark red umbrella include Citi Cards, CitiFinancial, CitiMortgage, CitiInsurance, Primerica, Diners Club, Citigroup Asset Management, the Citigroup Private Bank and CitiCapital.

It is the first US bank with more than $1 trillion in assets, Citigroup and its myriad subsidiaries offer deposits and loans (mainly through Citibank), credit cards, investment banking, brokerage, and a host of other retail and corporate financial services. Citigroup has recently retained TATA Consultancy Services Limited to provide offshore development Services.

TCSL offers unparalleled breadth and depth of domain knowledge in terms of both processes and technology; services suited for all stages of the information technology life cycle from planning to maintenance; well defined and time-tested methodologies; flexible and scalable niche products; and partnerships with leading product vendors.

The Industry practice of the project is banking - Cards (BFSI – Banking, Financial Services and Insurance, Mobile Banking). The BFSI industry practice is one among the largest vertical practice of TCSL, contributing considerably to its revenues. TCSL has more than 8 years of credit card experience and vast cards project experience with leading global banks and financial institutions, such as American Express, Citibank Singapore, GE Capital, Experian, ABSA Bank, ICICI Bank and Bank of America.

The Service Practice of the Project is Application Development and Maintenance (ADM). The Application Development and Maintenance (ADM) practice helps build robust architectures that can support 24/7 business availability to accommodate global customers and reduce development cycles to a minimum. TCSL uses CMM Level 5 and ISO 9001 quality processes to develop applications using scalable and extensible architectures for a wide range of industries.

The Prospective employee is a Web Developer having an in-depth knowledge and expertise in requirements management, coding and testing. He would be participating as one of the team of consultants from TATA Consultancy Services (TCSL) who will be working at the Citigroup at 6400 Las Colinas Blvd, Irving, Texas-75039.

**3. Project description and Role of TCS :**

Citibank Online portal supports the net banking web application of Citibank in US region and it provides one system with integrated tools where all credit card marketing and online servicing can take place. The benefit of using one system is that one set of processes, procedures and interfaces for all users, Citibank wide. This will reduce the amount of interfaces needed to various systems as well as the effort required to support and maintain them. The use of one system will increase in the Citibank customers self-servicing accounts and reduces the customer service call volumes. Through this effort, Citibank will promote its concept of digital banking there by able to make huge revenues. Citibank online portal becomes one common portal for every banking need involving credit card, investments and mortgage activities.

This project in Citibank involves in using Angular, Java J2EE, HTML 4/5, JavaScript, CSS3, , JQuery, Node.JS, AJAX, Typescripts, JSON, Junit and Espresso Applications. The specific activities involved are Project Planning, Project Management, Requirement analysis, detailed design and Implementation of development and enhancement requests, performance tuning, and development of interfaces.

The goal of this project is to support, maintain and develop new feature for Citibank online application. It also aims at migration all the application from different platforms (Broad vision and DA) and servers to be residing on a single Server (Web sphere). It also includes developing robust and reliable core banking applications.

Citibank Online Web application

Mobile Thick/Thin application

Middleware

Advanced Work Station application

Payments Microservices

TCSL will be working in all the above applications in maintenance support and enhancements.

Citigroup has decided to use onsite – offshore methodology for its application development and maintenance projects. So the project would be executed from the Citigroup site as well from TCSL, Chennai.

The complex projects initiated by the business of Citigroup necessitate the need for extensive interaction with the client directly for the successful completion of the project within the stipulated time. Hence for such complex projects, the schedule, quality and execution of the project would be adversely affected if the TCSL’s involvement is completely done at offshore.This results in causing a difficulty to the Citigroup business and its valuable customers because the correction of any errors at a later stage of the project may be costly and not affordable. Hence based on the project requirements, the kind of service provided to Citigroup mandates the collection of unambiguous requirements, clarification of doubts as and when required.Therefore, a close interaction between TCSL team and the clients business and technical teams is mandatory for such complex projects.

The Citigroup Customer Service system provides customer servicing via contact sensitive prompts, messaging, dispute processing, real-time file maintenance, multi-site integration and user-maintainable tables/files. The system is operational 24 hours per day, 7 days a week, with only periodic outages for hardware and software maintenance.

The major activities carried out by TCSL include Analysis / Design and development of enhancement requests, managing deliveries from Offshore, and process management activities related to the project.

**The following questions MUST BE answered**

|  |  |
| --- | --- |
| **4. Where will the TCS supervisor(s) for this project work?**  6400 LAS COLINAS BLVD,  IRVING,  TX - 75039  USA | **Project Site & Physical Street Address(es):**  6400 LAS COLINAS BLVD,  IRVING,  TX - 75039  USA |

**5.** Will TCS have the right to control the TCS associates at all times while working in the United States in H-1B status? (Yes or no)

**Yes**

**6.** On a day-to-day basis, will TCS managers be responsible for directly supervising the technical aspects of the TCS associates' activities? (Yes or no)

**Yes**

**7.** If the client will directly supervise the TCS associates’ technical work on a day-to-day basis, then please explain how TCS management will communicate with the client about the TCS associates and monitor the work the associates are doing, and how will TCS provide feedback to the associates?

TCS Managers communicate with the Clients through Meetings and Emails. Manager will do supervision through meetings, conference calls, emails and status reports and the Managers will be monitoring on a daily basis.

The appraisals are done regularly verbally & written; reviewed by Appraiser & reviewer and feedback is shared.

**8.** Will TCS management have responsibility for providing performance reviews to the associates? (yes or no)

**Yes**

**9.** Will TCS management have the right to remove the associates from the project and/or assigning the associate to other projects? (yes or no)

**Yes**

**10.** Will the client have the right to assign the associates to other projects without notifying TCS? (yes or no)

**No**– The request for removal comes to TCS supervisor

**11. ROLES that associates will perform at the project**

**Review the descriptions from the appropriate Appendix *attached at the end of this document* that BEST describes the roles that you will be filling on the US project.**

Appendix A – IT Development, Design & Analysis roles

Appendix B – Administration& Support roles

Appendix C – Engineering & Industrial Services roles

-----------------------------------------------------------------------------------------------------------------------------------------

**NOTE: Most of the TCS roles are covered in these Appendices. If your need is not covered, please provide the Job Title and detailed job description below so that we can determine the appropriate role.**

**Title (if not matching any of the roles in Appendix A, B & C):**

**Responsibilities:**

----------------------------------------------------------------------------------------------------------------------------------------

12. Please provide name and contact details of TCS onsite Manager/Coordinator who will be responsible for LCA posting.

|  |  |
| --- | --- |
| Name of TCS Onsite Manager/Coordinator | Manoj Kumar Mohanty |
| Job Title | Program Manager |
| TCS Emp.No. | 167378 |
| Alternate e-mail ID (if not accessing TCS e-mail) | manoj.mohnaty@tcs.com,  manoj.kumar.mohnaty@citi.com |
| Contact No. | +1 682 256 1125 |

***Note:*** During the processing of H1B, details of LCA (Labor Condition Application) must be displayed at two locations at the proposed U.S. work-site of the associate. It will be MS-Word document, which will be sent by US Visa team via e-mail to the TCS onsite Manager/Coordinator of the concerned project. This document must be printed and displayed at two locations at the proposed U.S. work-site of the associate. Please provide the details of TCS onsite manager/coordinator above who will be responsible for this activity. LCA posting e-mail will be sent to the Manager’s TCS e-mail ID by default. If the Manager/Coordinator is not accessing TCS e-mails, provide alternate e-mail ID above.

**13. Person to contact with questions about PRD:**

|  |  |
| --- | --- |
| **Name** Manoj Kumar Mohanty | |
| **Address**  **6400 Las Colinas Blvd,**  **Irving, TX - 75039** | |
| **Contact Number:** +1 972 6555142 | **Email Id** manoj.mohnaty@tcs.com,  manoj.kumar.mohnaty@citi.com |
| **Mobile Number:** +1 682 256 115 |

**Comments:**

**14. Declaration from the Manager who reviewed the PRD**

I hereby confirm that I personally reviewed the completed PRD and the information provided in the PRD particularly the selected role and job level is accurate.

Name, title of TCS manager who has reviewed the information above and confirms its accuracy.

Manager Name: Manoj Kumar Mohanty

Manager Title: Program Manager

APPENDIX A

**ITDevelopment, Design & Analysis Roles**

**Please identify the JOB LEVEL. If neither one of the job levels is appropriate (e.g. too junior, too senior) please indicate.**

☐**Intermediate:** The job requires basic competency. The associate will receive moderate supervision and will continue to build skills and knowledge in the role (i.e. still developing). The associate will apply standard procedures to solve problems and will apply independence only with regard to normal/straightforward problems and issues.

☐**Senior/Lead (Supervisor/Project Lead):** The job requires in-depth knowledge. The associate will handle complex issues and will perform the duties of the position independently with minimal supervision. The associate will apply new perspectives to solve non-standard/unusual problems where a precedent may not exist. Typically supervises colleagues with less experience.

☐**Master/Guru:**  The job requires specialized depth and/or breadth of expertise. The associate will serve as an expert within a discipline/function and will interpret internal or external business issues and recommend solutions/best practices. The associate will solve complex problems and will be expected to take a broad perspective to identify solutions. The associate will work independently, with guidance in only the most complex situations. May supervise other staff.

**JobDescriptions**

**(Please take care to read all the descriptions before making your selection)**

☐**Developer (Computer Programmers)**

Develop industry-specific solutions based on client needs, manage, and upgrade existing applications. Carry out detailed analysis to understand requirements and create code and/or build solutions as per requirements in development/maintenance projects in accordance with coding standards. Perform unit testing per test plans and test cases. Develop and manage applications, upgrade existing applications and/or integrate application with any new/existing applications and databases. Resolves application related issues experienced by end-users. As needed, provides consulting and/or pre-sales support through initial consulting to engagements based on practice solutions offerings, through input on RFPs/RFIs/client presentations, and through technical reviews of contracts and service agreements.

☐**Developer (Web Developer)**

Design, develop, modify, test and maintain robust, scalable website systems. Utilize mark-up and scripting languages as well as programming languages on various platforms to integrate the Internet, database technology and current trends in Web technology with other computer applications and enterprise systems. Design, develop and implement new software components to ensure system-wide efficiency, reliability and compatibility and to maximize system performance. Analyze user needs to implement website content, graphics, performance, and capacity.

☐**Analyst (Computer Systems Analysts)**

Responsible for requirements gathering and requirements analysis in area of specialization. Networks with internal and external stakeholders, conducts interviews and gathers data for analysis. Assists with identifying reports, journals and other market data for incorporation into overall analysis. Work with stakeholders to understand current state and to identify the future state for the proposed solution. Analyze data and identify gaps in the proposed solution, make recommendations for resolving gaps, and monitor results. Responsible for overall coordination of user acceptance testing and training.

☐**Engineer (Software Quality Assurance Engineers & Testers)**

Responsible for testing of applications. Develop and execute software test plans in order to identify software problems and their causes. Develop testing programs that address areas such as database impacts, software scenarios, regression testing, negative testing, error or bug retests, or usability. Document software defects, using a bug tracking system, and report defects to software developers. Plan test schedules or strategies in accordance with project scope or delivery dates.

☐**Analyst (Information Security Analyst)**

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Responsible for requirements gathering and requirements analysis in area of specialization. Networks with internal and external stakeholders, conducts interviews and gathers data for analysis. Assists with identifying reports, journals and other market data for incorporation into overall analysis. Work with stakeholders to understand current state and to identify the future state for the proposed solution. Analyze data and identify gaps in the proposed solution, make recommendations for resolving gaps, and monitor results. Responsible for overall coordination of user acceptance testing and training.

☐**Consultant (Data Warehousing Specialist)**

Design, develop and implement enterprise data warehouse and datamart models, logical data model, and physical data model. Analyze requirements, program and configure warehouses of database information, and provide support to warehouse users. Review data mart/warehouse deliverables, and suggest and co-create standards and guidelines. Perform data quality and profiling activities, advice on data quality issues, and provide analysis on data collection, mapping, aggregation and balancing functions. Develop mappings, define workflows and tasks, monitor sessions, export and import mappings and workflows and perform backup and recovery. Liaise with business users and enterprise architects as needed.

☐**Engineer (Computer Systems Engineers / Architects)**

Strategically architect, design, develop, and implement efficient information systems and/or operations systems in support of core enterprise functions. Understand business requirements, study existing application landscape, and identify redundant/ineffective systems. Conceptualize technical solutions to complex problems and maximize benefit of IT systems investments. Work closely with clients to gain organizational commitment for all systems and software plans, as well as evaluate and guide the selection of technologies required to complete those plans. Coordinate with offshore development team(s) to identify priorities and update scope and delivery schedule. Create data migration/system integration strategies. Monitor system performance to detect and resolve problems during deployment and support change management.

☐**Project Manager (IT Project Managers)**

Lead the day-to-day work of technical teams in the delivery of technical systems or sub-systems under aggressive timelines, leveraging global delivery model for project execution. Gather and analyze requirements for new projects and work requests and perform gap, risk and impact analysis. Analyze, design, build and test complex or high priority solutions. Prepare design documents, test plans, test cases and review with subject matter experts. Review technical work product and test results to ensure zero defect deliverables. Coordinate and monitor offshore team deliverables, and monitor and prioritize work to ensure project performance. Support system testing, component integration testing and user acceptance testing. Coach, mentor, and lead personnel within a technical team environment, and assess team member performance as required. Liaise closely with client and support the development of bid proposals and RFP responses.

APPENDIX B

**Administration & Support Roles**

**Please identify the JOB LEVEL. If neither one of the job levels is appropriate (e.g. too junior, too senior) please indicate.**

☐**Intermediate:** The job requires basic competency. The associate will receive moderate supervision and will continue to build skills and knowledge in the role (i.e. still developing). The associate will apply standard procedures to solve problems and will apply independence only with regard to normal/straightforward problems and issues.

☐**Senior/Lead(Supervisor/Project Lead):** The job requires in-depth knowledge. The associate will handle complex issues and will perform the duties of the position independently with minimal supervision. The associate will apply new perspectives to solve non-standard/unusual problems where a precedent may not exist. Typically supervises colleagues with less experience.

☐**Master/Guru:**  The job requires specialized depth and/or breadth of expertise. The associate will serve as an expert within a discipline/function and will interpret internal or external business issues and recommend solutions/best practices. The associate will solve complex problems and will be expected to take a broad perspective to identify solutions. The associate will work independently, with guidance in only the most complex situations. May supervise other staff.

**Job Descriptions**

**(Please take care to read all the descriptions before making your selection)**

☐**Network Administrator (Network and Computer Systems Administrators)**

Responsible for installing, configuring and supporting an organization’s local area network (LAN), wide area network (WAN), and internet system or segment of a network system. Monitor network to ensure network availability to all system users, and perform necessary maintenance to support network availability. Supervise network support and client/server specialists. Maintain and administer computer networks and related computing environments including computer hardware, system software, application software and all configurations. Maintain control records. Plan, coordinate, and administer network security measures in order to protect data, software, and hardware. Monitor the performance of computer systems/networks and coordinate computer network access and use. Design and implement network configurations, network architecture (including hardware and software technology, site locations and integrations of technologies) and systems. Responsible for remote management of network by handling incident/request escalations, and providing solutions using remote management tools.

☐**Database Administrator (Database Administrators)**

Responsible for administering one or more databases in a production environment. Installs and upgrades servers and application tools. Allocates system storage and plans for future allocations. Creates primary objects (tables, indexes, views) after an application has been designed, and creates storage once an application is developed. Enrolls users and ensures system is secure; monitors user level access to database(s); and monitors database performance optimization. Plans for backup and recovery of the database and clusters, replicates and normalizes data as required. Responsible for high-end database design and modeling including performance tuning, input/output tuning, and capacity planning.

APPENDIX C

**Engineering & Industrial Services Roles**

**Please identify the JOB LEVEL. If neither one of the job levels is appropriate (e.g. too junior, too senior) please indicate.**

☐**Intermediate:** The job requires basic competency. The associate will receive moderate supervision and will continue to build skills and knowledge in the role (i.e. still developing). The associate will apply standard procedures to solve problems and will apply independence only with regard to normal/straightforward problems and issues.

☐**Senior/Lead (Supervisor/Project Lead):** The job requires in-depth knowledge. The associate will handle complex issues and will perform the duties of the position independently with minimal supervision. The associate will apply new perspectives to solve non-standard/unusual problems where a precedent may not exist. Typically supervises colleagues with less experience.

☐**Master/Guru:**  The job requires specialized depth and/or breadth of expertise. The associate will serve as an expert within a discipline/function and will interpret internal or external business issues and recommend solutions/best practices. The associate will solve complex problems and will be expected to take a broad perspective to identify solutions. The associate will work independently, with guidance in only the most complex situations. May supervise other staff.

**Job Descriptions**

**(Please take care to read all the descriptions before making your selection)**

Software/Systems

☐**Developer** (**Software Developer, Systems)**

Develop industry-specific solutions based on client needs, manage, and upgrade existing applications or systems. Carry out detailed analysis to understand requirements and create code and/or build solutions as per requirements in development/maintenance projects in accordance with coding standards. Perform unit testing per test plans and test cases. Develop and manage applications/systems, upgrade existing applications/systems and/or integrate application/systems with any new/existing applications, systems and databases. Resolves application/systems related issues experienced by end-users. As needed, provides consulting and/or pre-sales support through initial consulting to engagements based on practice solutions offerings, through input on RFPs/RFIs/client presentations, and through technical reviews of contracts and service agreements.

☐**Developer** (**Software Developer, Applications)**

Develop industry-specific solutions based on client needs, manage, and upgrade existing applications or systems. Carry out detailed analysis to understand requirements and create code and/or build solutions as per requirements in development/maintenance projects in accordance with coding standards. Perform unit testing per test plans and test cases. Develop and manage applications/systems, upgrade existing applications/systems and/or integrate application/systems with any new/existing applications, systems and databases. Resolves application/systems related issues experienced by end-users. As needed, provides consulting and/or pre-sales support through initial consulting to engagements based on practice solutions offerings, through input on RFPs/RFIs/client presentations, and through technical reviews of contracts and service agreements.

New Product Development

☐**Engineer (Design Engineer)**

Design and develop new products and/or the systems used to produce them with the goal of improving the efficiency and performance of existing designs, machinery and equipment, systems and/or products. Perform technical requirements collection, project estimation, resource scheduling, and cost control. Apply software technology to iteratively design optimal profiles to achieve superior performance of products or device systems taking into account materials selection, cost, maintenance, safety regulations, legal stipulations, the environment, quality and other production guidelines. Generate concepts, performance and production criteria for design synthesis and transfer for downstream development of final product specifications and technical design reviews. Validate design layouts, dimensions and feature call outs in engineering specification drawings. Design, model and test prototypes. Responsible for defects tracking, root cause analysis and abatement plan implementation to prevent defects in various modeling, drafting and engineering change order related projects.

☐**Engineer** (**Automotive Engineer)**

Develop new or improved designs for vehicle structural members, engines, transmissions, or other vehicle systems, using computer-assisted design technology. Perform technical requirements collection, project estimation, resource scheduling, and cost control. Apply software technology to iteratively design optimal profiles to achieve superior performance of products or device systems taking into account materials selection, cost, maintenance, safety regulations, legal stipulations, the environment, quality and other production guidelines. Generate concepts, performance and production criteria for design synthesis and transfer for downstream development of final product specifications and technical design reviews. Validate design layouts, dimensions and feature call outs in engineering specification drawings. Design, model and test prototypes. Responsible for defects tracking, root cause analysis and abatement plan implementation to prevent defects in various modeling, drafting and engineering change order related projects.

☐**Engineer (Mechanical Engineer)**

Design and develop new products and/or the systems used to produce them with the goal of improving the efficiency and performance of existing designs, machinery and equipment, systems and/or products. Perform technical requirements collection, project estimation, resource scheduling, and cost control. Apply software technology to iteratively design optimal profiles to achieve superior performance of products or device systems taking into account materials selection, cost, maintenance, safety regulations, legal stipulations, the environment, quality and other production guidelines. Generate concepts, performance and production criteria for design synthesis and transfer for downstream development of final product specifications and technical design reviews. Validate design layouts, dimensions and feature call outs in engineering specification drawings. Design, model and test prototypes. Responsible for defects tracking, root cause analysis and abatement plan implementation to prevent defects in various modeling, drafting and engineering change order related projects.

☐**Modeler (Mechanical Drafters)**

Develop detailed design drawings and specifications for mechanical equipment, dies, tools, and controls, using computer-assisted drafting (CAD) equipment. Lay out and draw schematic, orthographic, or angle views to depict functional relationships of components, assemblies, systems, and machines. Coordinate with and consult other workers to design, lay out, or detail components and systems and to resolve design or other problems. Review and analyze specifications, sketches, drawings, ideas, and related data to assess factors affecting component designs and the procedures and instructions to be followed. Modify and revise designs to correct operating deficiencies or to reduce production problems. Compute mathematical formulas to develop and design detailed specifications for components or machinery, using computer-assisted equipment.

☐**Lead (Electronic Drafters)**

Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment. Consult with engineers to discuss and interpret design concepts, and determine requirements of detailed working drawings. Examine electronic schematics and supporting documents to develop, compute, and verify specifications for drafting data, such as configuration of parts, dimensions, and tolerances. Draft detail and assembly drawings of design components, circuitry and printed circuit boards, using computer-assisted equipment or standard drafting techniques and devices. Review work orders and procedural manuals and confer with vendors and design staff to resolve problems and modify design

☐**Modeler (Electromechanical Modeler)**

Support computer-based process control, instrumentation, and/or machine design of machines and devices, which combine electronic and mechanical parts. Develop detailed design drawings and specifications for electromechanical equipment, tools, and controls, using computer-assisted drafting (CAD). Layout and draw schematic or angle views to depict functional relationships of components, assemblies, systems, and machines. Assist the planning of workflow, conduct statistical studies, and analyze production costs.

☐**Engineer** (**Manufacturing Engineer)**

Analyze and define production processes to achieve product requirements. Set up, test, and adjust manufacturing machinery or equipment, using any combination of electrical, electronic, mechanical, hydraulic, pneumatic, or computer technologies. Contribute to production automation to improve manufacturing efficiency and optimization.

☐**Engineer (Analysis Engineer)**

Responsible for validating the engineering design for mechanical, thermal and flow elements using finite element methods. Analyze data using finite element analysis, computer-aided engineering, computational fluid dynamics, etc., run simulations, and provide performance verification with the goal of streamlining all aspects of the engineering design process.

☐**Engineer (Validation Engineer)**

Apply engineering analysis and expertise to validate that mechanical, electromechanical, and/or embedded products or systems meet requirements and specifications and they fulfill their intended purpose. Design or plan protocols for equipment or processes to produce products meeting internal and external purity, safety and quality requirements. Prepare, maintain, or review validation and compliance documentation, such as engineering change notices, schematics, or protocols. Prepare detailed reports or design statements based on results of validation and qualification tests or reviews of procedures and protocols.

Embedded Systems

☐**Engineer (Embedded Systems Design Engineer)**

Design and implement solutions for the development high-performance and robust embedded platforms. Develop systems, software, firmware, device drivers, components and computing systems software to be applied to and integrated with engineering, scientific and manufacturing requirements.  Debug and optimize code to ensure superior system performance. Assist in maintaining existing code (in terms of functionality, reliability, and performance). Create and maintain software design documentation.  Work with client teams, functional, quality assurance, and offshore teams to ensure development of integrated solutions.

☐**Engineer (Embedded Hardware Design Engineer)**

Design and implement solutions in the development of high-performance and robust embedded platforms.

Responsible for embedded multi-layer hardware design, including component selection, schematics, and layout. Work with client teams and functional, quality assurance and offshore teams to ensure development of integrated solutions.

☐**Engineer (Product Engineer – Embedded)**

Support the design of subsystems for high-performance and robust embedded platforms. Layout, build, test, troubleshoot, repair, and modify developmental and production electronic components, parts, equipment, and systems, applying principles and theories of electronics, electrical circuitry, engineering mathematics, electronic and electrical testing, and physics.

☐**Engineer (Radio Frequency Engineer)**

Design and implement radio frequency identification device systems using analog and digital communication for passive and active sensing/tracking with application in manufacturing, pharmaceuticals, shipping, construction and agriculture.