

Work Report of NAVDEEP GARG, SCI/ ENG 'SC', MISD-PPEG, MISA

From Jan-2019 to Dec-2019

I am working in Management Information Systems Division (MISD) of PPEG group and reporting to Shri **CHANDRASHEKHAR MISHRA**, Division Head (MISD). Following are the brief account of work carried out by me during the period from 01.01.2019 to 31.12.2019.

1. PROJECT ACTIVITIES

As a member of the MISD team, I was involved in following activities:

- Enhanced the interface system 'ISRO/DOS PFMS Web Services Interface System (**IPWS**)' that developed for exchanging transactions information between ISRO/DOS centres and Public Financial Management System (PFMS). This was required to cater the new requirements that can be accomplished by including varied web-services functionality provided by PFMS system.
This involved the exploiting of web services' methods provides additional functionality for keeping track of exchanged data between the system and maintain the consistent information for all payment made.
- As a developer of IPWS system, hold the responsibilities to **analyze** new requirements, planning its design, implementation and testing of required code changes, installation and maintenance of deployed versions on live server.
- Nominated as a team member by 'COINS-PFMS Interface /software review Committee' to commence the **codewalk** through of COINS-PFMS Interface Software.
As a member of this committee, provided detailed report that covered major business logic related issues, bugs and short coming in functionality in different modules, performance related issues, recommendations for possible code optimization, improving exception handling and implementing modularity at the code level. Recommendations received for IPWS module also got implemented successfully which in turn enhance the performance of the system.
- Enhanced linux shell scripts for exchanging data between COINS system and IPWS system using **rsync** utility. This modification was required to ensure complete files synchronization and saving files backup which are transacting in between two servers.
- Provided all required support for **successful implementation of COINS-PFMS interface software across all ISRO centres**. The system is working and serving its objective since 01-Jan-2019.
- Developed a prototype model to **automate** the payment acknowledgements to the using e-Mail / SMS alerts to registered vendors whenever a payment credited in respective bank account. This in effect eliminate the manual intervention, improve efficiency and saves environment/money by avoiding sending details through postal card /speed-post.
- Developed a prototype model and demonstrated fetching of data from multi-disciplinary databases over the network using latest **SPRING-BOOT** technology. This technology made the data retrieval process quite efficient. This retrieved data from across the ISRO centers can be processed at a common server to extract the desired outcome which shall help management in **decision making**.
- Successfully implemented the concept of **CONNECTION POOLING** in all major **SANDESH** software modules.
This in effect lower the database connection overhead at the Server and in turns observed a subsequent improvement in software performance.
- From time to time, provided requested data for **RTI and Audit queries** that forwarded by URSC-Accounts.
- Successfully implement **Hindi Knowledge Management System** developed by Space Application Centre(SAC) on our test server and have been taking feedbacks from the users in order to perform a seamless operationalization.
- Applied software patches and provide solutions to COINS project team to resolve application bugs in ACCOUNTS, STORES, PURCHASE and CHSS modules.

2. TRAININGS

Following training that I have attended and makes complete use of them in my official work.

- One-day Workshop on Hindi Knowledge Management, System and Applications at SAC, Ahmedabad on 14th March 2019

3. ADDITIONAL ACTIVITIES

- As Division Level Management Representatives (**DMR**) for ISO program in URSC presented all relevant ISO documents to External Auditor and close the audit procedure without any Non-Compliance(NC). This was contributed in getting ISO certification to our centre.
- As 'Member Secretary' of 'Test of Scientific temper competition' event that took place in 'National Science Day-2019', hold the responsibility to interact with various schools across the city to ensure their active participation and maximum enrollments from students.
- As a member of 'Vikram Sarabhai Life Journey Team' in Vikram Sarabhai Centenary Programme (VSCP), presented the dummy space suite model in 'Selfie Corner' to spread awareness about ISRO ongoing projects.
- As a member of 'Gymnasium Committee' coordinated with the vendor and other stakeholders to ensure the proper management and maintenance at all four GYM complex of ISRO in Bengaluru.

**DATE: January 17, 2020
BENGALURU**

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