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**System Requirement Specification**

**For**

**Central Placement Cell (CPC) System**

**1.1**

**20th Dec, 2019**

Submitted to

Department of Chemicals & Petro-Chemicals

**(Department of Chemicals & Fertilizers)**

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# DOCUMENT DETAILS

## Review History

| Review Date | Version | Reviewers | Comments |
| --- | --- | --- | --- |
| 09-12-2018 | ***1.0*** | Anshuman Swain | *First Draft Versions* |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Approvers

| Name | Title | Signature | Date Approved |
| --- | --- | --- | --- |
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# INTRODUCTION

The objective of Central Placement Cell (CPC) is promotion, and development of Central Placement Cell by extending financial support for conduct of seminars, conferences, exhibitions, conducting studies/ consultancies, for facilitating growth, as well as analysing critical issues affecting chemical and petrochemical sector. Under CPC the Department of Chemicals & Petrochemicals on its own or through financial support by way of Grant-in-aid to reputed Institutions, organizations, or Non-Government Organizations as mentioned in Rule 206 of GFR 2005, shall:-

1. Conduct Training/knowledge improvement programs/activities on issues/ subjects relevant to growth of chemical and petrochemical industry. An indicative list of subjects is as under:-
2. Quality Management System/Quality Improvement Program
3. Issues related to feedstock, pesticides and chemicals
4. Success Story Presentation-Green technologies and other innovative technologies in chemical sector
5. Outreach programmes for industries on Government regulations/guidelines for chemical and petrochemical sector etc.
6. Waste Management
7. Chemical safety and security including handling and transportation of chemicals.
8. Setting up of standards
9. Organize seminars, workshops, conferences, Summits, Convention, Exhibitions, etc. in India and produce promotional materials like films, displays, e-booklets and brochure etc.
10. Conduct studies, surveys and sector reports etc.
11. Purchase books, quality standards, magazines, directories, developing information data banks, developing e-learning modules etc.
12. Organize any other activity not covered under above categories which may be decided by the Department from time to time.

## Project Overview

This proposed system will be a CPC grant-in aid monitoring system. This grant-in aid is categorized as five different categories and the process of grant also vary based on grant seeking organisations.

### Grant Categories

1. Conduct Knowledge Improvement program
2. Organise Seminars
3. Conduct Survey Activities
4. Buy Books & journals
5. Other Activities

### Eligible Organisations

1. CPC Department (Itself)
2. Govt Organisations
3. Private Organisation
4. Industry Associations
5. Academic Bodies

### Organiser Type

1. Organised by CPC
2. Organised by Others on behalf of CPC
3. Organised by Other need grant

### Eligibility Matrix

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Grant Category** | **Organisers** | **Organiser Type** | **Aid %** | **Limit** | **Remarks** |
| 1 | Conduct Knowledge Improvement program(a) / Organise Seminars(b) | Department/Autonomous Bodies/Institutions/ Agencies of the government |  | 100 |  |  |
| 2 | Industry Associations, Private Institutes, NGO, Others initiated by department |  | 75 |  |  |
| 3 | Industry Associations, Private Institutes, NGO, Others initiated by their own |  | 50 |  |  |
| 4 | Mega & Joint Event |  |  |  | Required pre-approval |
| 1 | Conduct Survey Activities(3)/ Buy Books & journals (4)/Others | Department/Autonomous Bodies/Institutions/ Agencies of the government or done by association initiated by department |  | 100 |  |  |
| 2 | Industry Associations, Private Institutes, NGO, Others initiated by own |  | 50 |  |  |

**NB:**

1. Organisations having a unique ID with Niti Aayog are eligible only.
2. The applicant will apply before 2 months of the event date

### Stake Holders

1. NGOS, Industry associations, institutions, organisations, Govt/Academic Bodies
2. Authorised Officials from CPC (Section Officers, Director, Joint Secretary, Secretary & Minister)
3. Integrated Financial Division(IFD) - (Section officers, Under Secretary, Deputy Secretary, FA(IFD)
4. Niti Aayog
5. NGO Darpan Portal

## Functional Overview

### Registration

1. Industry registration.
2. After registration email id and default password sent to user mail Id.
3. For login, industry will give email id and default password. Then industry can set new password.

### Grant Industry

1. When industry registration completed, admin will verify then decide for approve/ reject.
2. On approval / reject a mail sent to industry mail id for confirmation.

### Update Industry Details:-

1. Once admin approved the industry, industry can update profile.
2. After industry profile update, admin will download MOU document .
3. Then admin will approve / reject the industry.
4. The mail will sent to industry on confirmation of admin approval / reject .

### Campus Drive :-

1. Once admin approved the industry profile , industry can proceed to campus drive.

### Reports & Dashboard

1. Consolidated grant given event financial year wise
2. Consolidated grant approved event status wise
3. List of grants given
4. List of grants approved

### Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| CPC | CENTRAL PLACEMENT CELL |
| RFP | Request for Proposal |
| SRS | Software Requirement Specification. A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document. |

## Overview of Document

The purpose of this document is to present detailed system requirements of the CENTRAL PLACEMENT CELL *(CPC)*. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, and the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both stakeholders and developers of the system.

The first chapter - contains overview of this document inclusive of revision history, author detail, content index table and location.

The second chapter - contains project overview and scope in high level. This chapter gives the project context in high level.

The third chapter–S/W Requirements section, of this document is written primarily for the developers and describes in technical terms, the details of the functionality of the product. Both sections of the document describe the same software product in its entirety, but are intended for different types of audience and thus use different language.

The fourth chapter –System Requirements section, of this document is written primarily for the developers and describes system requirements other than the S/W requirements of the product.

# SoftwareREQUIREMENTS

This section will have all business functionality requirements. The detail requirements are numbered for traceability. Programmers to develop the system will use this section.

## User Management

The objective of this module to have role based user management system. System admin will able to manage users, user roles and resources from this module.

S0001: The system will have three types of users , first is Super admin, Admin and industry .

S0002: The system admin will be able to change its profile and password frequently.

S0003: The system admin able to create internal/application users like authorised officials from CPC, NITI Aayog users, Central Ministry (Dealing Assistant, Section officers, Under Secretary, Deputy Secretary, Director, Joint Secretary, Additional Secretary, Secretary, Hon’ble MOS/Minister, and FA(IFD).

S0004: The system admin will be able to reset password of these application internal users.

S0006: The system admin able to create multiple roles of the application users based on their roles and responsibility.

S0007: The system admin able to assign users to roles. This will help role based security and workflow management.

S0008: The system will able to map resources i.e. menus or screens to a role to have right access to right resources.

S0009: All external users like NGO’s and other organisations will be managed by self-registration process and that is outside of this module.

## Master Data Management

The objective of this module is to make the application a flexible one by avoiding hard coding of any master data. Super admin will able to manage all codes like organisation type, organisation category, application type , application category, grant limit mapped to a category and etc. without code change.

S0051: The system admin will be able to set up organisation types

S0052: The system admin will be able to set up organisation category

S0053: The system admin will be able to set up application type

S0054: The system admin will be able to set up application category

S0055: The system admin will be able to set up grant limit to on application type and category combination

S0057: The system admin will able to configure document list required for registration.

S0058: The system admin will able to configure document list required for applying for grant

S0058: The system admin will able to configure document list required for applying for utilisation certificates

S00589: The system admin will able to have generic code description set up.

## Workflow Management

The objective of this module is to have a generic workflow horizontal engine. This will help an application to move from one user role to another user role based on work flow rule set by the admin.

**Industry Panel :**

1: Industry registration / Login.

2: Add Details :- Industry update profile.

3: Add Campus :- Industry proceed for campus drive.

4: View Campus Drive :- Ongoing , Forthcoming , completed campus drive display.

5: Helpdesk :- Submit query.

## Registration

Is Validated from Admin

Niti Aayog Web service

Yes

Is a Industry

Registration form

No

Non Valid Industry

Yes

No

Validate By CPC

No

Yes

Is Valid

Registered Users

**Admin Panel:-**

6. **Industry**:-

7. **Industry** **Registered**: - Display the entire industry list. Here admin approve or reject the industry and mail sent to industry .

8**.Industry Updated Profile** :- Display the entire updated industry list. Here admin can see the industry details , download MOU document and approve / reject the industry profile.

9. **Campus Drive:-**

10**. Add** **Campus Drive: -** Admin add industry wise campus drive.

11. **View** **Campus** **Drive**: - Ongoing , forthcoming and completed campus drive display.

a) In Ongoing campus drive: - All current campus drive display.

b) In Forthcoming campus drive: - All upcoming campus drive display. Here admin can update the campus drive date, place where drive will organised and contact no.

c) In Completed campus drive: - Admin will entry the total candidate appeared, selected and joined.

12. **Campus Drive for Candidate**: - In Forthcoming campus drive, admin will select candidate for campus drive.

13. **Candidate List: -**  Here admin can add, edit, update and delete the candidate. Filter wise display candidate list.

14. **Institute: -** Here admin can add, edit, update and delete institute.

## New Application

**Application- With No International Guest**

IFD

S0201: In application-with no International guest user needs to select the NO option from “ Is Foreign Participants are Invited ” at the time of fill up the annexure-I form .

S0202: No other documents are needs to upload for that.

**Application- With International Guest (International Events)**

Applications with international guests go to Secretary and minister level.

IFD

S0231: In application-with International guest, user needs to select the YES option from “Is Foreign Participants are Invited” at the time of fill up the annexure-I form.

S0232: If user selects YES option then they have to upload two more documents (i.e. Clearance from MHA application copy and next one is Clearance from MEA application copy).

S0233: A button is displayed on the screen to upload the both the above mentioned documents.

## Generate E-Office File Number

S0241: After the application is approved, approver needs to generate E-Office File Number. So, that user can send the details and documents to the Niti Aayog.

## Send Post To Niti Aayog

S0251: After generating E-Office File no a button is displayed on the screen of approver, by clicking that button approver can send the details and documents to Niti Aayog.

## Communication Module

S0301: The user will select one of the applicants and can do any type of communication with him like rejection mail, sanction order mail etc.

S0302: All the communication in portal from starting registration to approval are done in the mail.

## Reporting

S0351: Consolidated grant given financial year wise

S0352: Consolidated grant given according to status wise

S0353: List of grants given

S0354: List of grants approved

## Interface Requirements

S0401: Able to get organisation validated from Niti Aayog.

S0402: Able to upload the utilisation detail to Niti Aayog

# SYSTEM REQUIREMENTS

## 4.1. Standard Requirements

### 4.1.1. Generic Requirements

S1001: The proposed system will be a web based system and accessible from anywhere.

S1002: The proposed system’s user interface (UI) will be as per CPC standard.

S1003: The proposed system will interface with Niti Aayog

S1004: The System will use IR for currencies

S1005: The System will use Indian Time Zone for all measure of Date and Time

S1006: The system will be tested and documented using Industry standards for testing, reporting and documentation

S1007: All documents are deliverables and documentation will be done as per Industry Standard

S1008: Values of money shall be precise to the nearest cent.

S1009: Values of time shall be precise to the nearest second.

S1010: Date will be DD/MM/YYYY format

S1011: The system shall be accessible to department users from any part of the world through secure login

S1012: The online forms will be available to all external users from any part of the world using their web browsers

S1013: The response time in ideal time will be 4 secs and for large search and documents will be 10 seconds.

S1014: Application should run 24/7 without crashing

S1015: The history of deleted/modified data will be maintained with help of audit trail tables in database.

S1016: There will be an entry into audit trail tables for every modification/deletion with date and time stamp and modified by information for future reference.

S1017: There will have maximum 20 concurrent users.

S1018: The system will able to restore data with easy interface from hard disk/from external drive

S1019: This robustness of a system is associated with the degree to which the system continues to properly function under abnormal circumstances.

S1020: The system should gracefully handle invalid input (i.e., detect invalid input, request valid input, and not crash)

S1021: The amount of data that needs to remain online is limited to 2 years old or has remained active for the last 2 years

S1022: System will have installation manual if required

S1023: System will have an automated installation script to install the system

### 

### 4.1.2. Administration Requirements

S2001: Ability for Administrator to administrate/setup the setup data

S2002: Ability for Administrator to perform User Administration

S2103: Ability for Administrator to add, remove and update user accounts

S2104: Ability for Administrator to create, update, remove user roles

S2105: Ability for Administrator to allocate user accounts to user roles and to remove user from a user role

### 4.1.3. User Interface Requirements

S3001: The typical user shall be able to freely, easily, and quickly navigate between relevant forms and WebPages

S3002: All multiline text boxes in all forms will be replaced by formatted text box.

S3003: Ability to export and print the Forms to Word and PDF

S3004: The system shall interoperate with the following browsers:

• Internet Explorer 8.0 and above

• Mozilla Firefox 9.0 and above

## 4.2. Technical Requirements

### 4.2.1. Design& Development &Testing Requirements

S4001: The S/W will be developed following standard OOP service based architecture

S4002: The system shall use OOP methodology to create a common; reusable system architecture.

S4003: The application development will follow NICSICoding Standards

S4004: The Software platform if any coding is required has to be developed using the java,platform. PostgreSQL will be used as database.

S4005: The software has to be built for future modular growth

S4006: The current and future websites of SIF will remain on java-Apache Tomcat platform

S4007: The application will be tested using NICSI-testing methodology

S4008: User Acceptance Testing will be done by CPC.

S4009: Setting up of Test Environment at IT and UAT CPC

### 4.2.2. Deployment Requirements

A virtualized VMware platform is preferred for the future Hardware infrastructure.CPC & NICSI will provide h/w platform.

### 4.2.3. Security Requirements

The Single Sign Process will be used for the application. SSL can be issued as per CPCS demand. The application will have cert-in audit.

### 4.2.4. User Training & User Manual & Help

There will be a user manual to train staff for using this application

### 4.2.5. Automated & Manual Functions

NICSI backup process will be followed for the backup

# ASSUMPTIONS

As per assumption, all applicants will have valid organisation detail with Niti Aayog. However, we have given option to have organisations without Niti-Aayog for registration. We can remove these functionalities after approval from CPC team.

# CONSTRAINTS

CPC portal is dependent on Niti Aayog web service to validate its organisations. Any issues with webservices will have constraint for this portal.

# Sign OFF

**Sign Off From STL Sign off From CPC**

Program Director Project Manager

CEO Director Signoff