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MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY

Dabwali Road, Bathinda (Pb.) - 151001

(Estd. by Govt. of Punjab Vide Punjab Act No. 5 of 2015) ONLY TECHNICAL UNIVERSITY OF PUNJAB HAVING UGC APPROVAL UNDER 2(f) AND 12 B OF UGC ACT, MEMBER AIU.



IT & CYBER POLICY

CYBER SECURITY

Prepared by:

INTERNAL QUALITY ASSURANCE CELL

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MRSPTU- IT & Cyber Policy

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2021

INTERNAL QUALITY ASSURANCE CELL

**MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY
BATHINDA 151001**

IT & Cyber Policy

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IT & Cyber Policy

Information Technology (IT) Policy

In technological era, it is very important to have a framework for effective use of computing and networking infrastructure in MRSPTU. The Information Technology (IT) Policy of the MRSPTU University defines rules, regulations, and guidelines for proper utilization as well as the effective maintenance of these technological assets & software required to run university operations effectively.

The following are the general policy stands of MRSPTU Bathinda related to IT.

1. Only licensed software or Free or Open-Source Software (FOSS) shall be used for different activities.
2. Unauthorized access and use of official information shall be penalized.
3. Security audit shall be conducted on regular basis to identify possible weak points and to correct them.
4. The roles and responsibilities of users shall be clearly defined.
5. Backup of data shall be taken in remote location (preferably on Cloud) along with local backup to prevent the data loss due to fire, flood, or other calamities.
6. A fool proof disaster recovery plan shall be implemented.
7. Access to social networking, offensive and commercial websites shall be controlled.
8. The details of logged in users shall be checked regularly.
9. Open ports in networks shall be identified and always kept closed.
10. Unauthorized changing of the configuration settings of the network shall be prevented.
11. The users shall be educated about the need for network security and the use of best practices.

Software Development Process & Policies

This section describes process and policies to be followed for software development by ITES department.

1. Process for Software Takeover from Vendor Companies

1. Installation document, Source code and database scripts to handed over to MRSPTU programmers by vendor company.
2. MRSPTU Programmers will install the software on a New server as per the steps given in installation document.
3. Any deviations in installation needs to be corrected by the Vendor company and submitted again.
4. Once installation is complete, Software setup steps to be followed by the MRSPTU programmers to setup the software on server (preferably on the internet)
5. At least One account for each persona to be created.
6. MRSPTU programmers and concerned department will test the software for a period of 2 weeks (minimum) and report the bugs , if any, in functionality / workflows and submit the report every day.
7. Vendor company will fix the reported issues and provide the probable time to fix the issues.
8. CRs / Feature requests will be discussed with Head of Indenting department or his nominee, Director ITES, and decision will be taken accordingly.
9. Once all reported issues are fixed to the satisfaction of MRSPTU programmers and Head of Indenting department or his nominee, Software will be accepted.
10. Final decision on any concerns / issues raised will be taken by Head of Indenting department or his nominee.

Process for Knowledge Transition (KT) from Vendor Companies to MRSPTU Programmers.

1. KT will happen over a period of 20 working days. (Number of days may change as per volume of work and familiarity of programmers with technology)

2. Vendor company will share and provide walk-through of following:
 1. Overall System design describing major components.
 2. Database design document describing Tables, relationships, stored procedures, triggers, functions, views etc.
 3. Installation Document for software.
 4. Specific hardware requirements if any.
 5. Live server / hosting details.
 6. Configuration files, if any, and description of configuration parameters along with valid values.
 7. Source code.
 8. Third party components / their source code, if any used.
 9. Third party services / APIs used and their details and licensing terms.
 10. Description of development frameworks used. (e.g. spring, laravel, Zend etc.)
 11. User manual describing major functionalities, roles and access privileges.
3. MRSPTU programmers and Vendor company persons will sit together and chalk out a KT plan to be followed over the next 20 days (No. of days can vary as per the volume of work.)
4. 2-3 hours session will be planned daily where the persons from vendor company should discuss the details with MRSPTU programmers as per KT plan and answer their queries.
5. All queries / answers to be recorded in an excel sheet for future reference. All queries should be answered before final sign off.
6. Once the KT is complete up to the satisfaction of MRSPTU programmers, final sign-off will be provided. Q / A sheet to be submitted to support sign off.
7. Production support as per agreement.

2. Software development process to be followed (Existing Software)

1. Bug Fixes: (immediate and high priority)
 1. Bugs priority will be decided by the concerned department along with ITES programmers.

2. Programmers will take up the bug in order of priority and to fix it.
 3. Any information / clarifications raised by programmers should be addressed by the concerned department in a timely manner.
 4. Any change in already implemented flow will be considered as New feature request and will be taken care by # 2-2.
 5. Programmers will complete the task in hand before picking up any next bug / defect to fix.
 6. Any data correction required to fix the bug should be permitted (in written) by the Authorities (or nominees) of the concerned department. This required to maintain data integrity. Programmers will not make any data corrections without permission.
 7. Build will be deployed on live server once a week. (most probably on Friday after lunch) or on a time mutually decided by ITES and concerned department head, so as to minimize the impact on normal operations of the software.
 8. Any break in existing functionality, due to deployment will be fixed on priority. Any other issues will take normal weekly release cycle.
2. New Feature Requests / Medium and Low priority Bugs.
 1. Any modification in existing functionality / workflow will be considered as new feature / Change Request (CR).
 2. Change requests will be implemented in 2 week sprint cycle following Agile methodology. And newly functionality developed functionality will be demonstrated to concerned department.
 3. Once accepted, changes will be deployed to production server.
 3. Support:
 1. ITES department will give a demo of the functionality to the concerned department. And will be involved only for resolving technical issues. Programmers will not act as Application Admins.
 4. End User Support:
 1. End user support for any software will have to be provided by the concerned department. ITES will not directly deal with end users.

3. Software Process to be followed (New Software Development)

1. Department for which software is to be developed has to initiate the requirement. Concerned department nominee and ITES team member will work on the requirements for the software in a timely manner.
2. UX mockups / drawings to be developed as per the requirements to understand the overall flow.
3. Criteria to define the priority of bugs / CRs to be defined and added to the requirements document.
4. Once agreed by the Concerned department head and Director ITES, in written and signed, the development work will start.
5. ITES team will estimate the work and provide a draft plan for development.
6. Development will be done in a 2 week sprint cycle following Agile methodology.
7. Report of the work done will be shared bi-weekly with all stakeholders and higher authorities.
8. Demonstration of work will be given to all interested at end of sprint or as per availability of concerned members.
9. Any comments / concerns raised during the demo will be noted down and added to backlog. These will be addressed at the end of development cycle. In case there is a major change in the requirement which impacts overall design of the software, requirements can be prioritized in upcoming sprints. New requirements will be added to the requirements document and re-planning will be done. Change in timeline due to this will be communicated.
10. Once development is complete, code will be deployed on Test server and User Acceptance Testing (UAT) will start. Nominated person from concerned department will test the functionality as per the signed requirements with in given timelines.
11. All high and medium priority bugs should be fixed by ITES team, which are raised by the concerned department nominee.
12. Once all high and medium priority issues fixed. The code will be deployed to production server for live operations.

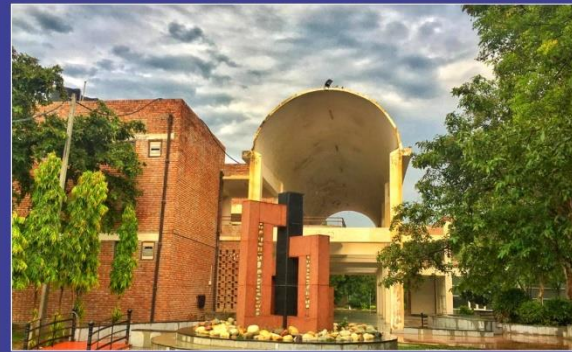
13. Once production deployment is done, there will be hyper care period of 2 weeks in which immediate and high priority bugs will be fixed. (no new feature request / change in requirements will be accepted at this phase.)
14. After completion of 2 weeks hyper care period, Software is handed over to the concerned department and ITES team will have no role in day to day operations of the software.
15. All data creation / Administration tasks of the software will be taken care by designated admin from concerned department. (Not by ITES team.)
16. Any new bugs / new features to be developed after that has to follow the steps as per #2.
17. If software has integration with other department, then any non-technical inter departmental issues to be sorted out by concerned departments themselves. ITES team will only work on technical issues based on the inputs provided.
18. If the software is developed by external company the takeover of the software from that company will follow the steps as per #1.



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