

Date: 25/04/2024

## **Institutional Development Plan**

#### Academic Year 2023-24 to Academic Year 2028-29

| S.<br>No | Essentials<br>Excellence for<br>attaining               | Primary Focus   | Optimal Scenarios  |
|----------|---|---|--|
| 1        | Physical<br>Infrastructure                              | Enablement Accessibility<br>Capacity Comfort<br>Easement  | Open outdoor disturbance natural place<br>without any. The Indicative List of<br>Physical infrastructure Requirements for a<br>College is given in <i>Annexure 1</i>   |
| 2        | Digital Infrastructure                                  | Openness & Ubiquitous<br>accessibility, increased<br>efficiency, increased<br>productivity, lower operational<br>costs, improved learner<br>experience, increased<br>transparency, improved<br>competitive advantage, and<br>faster decision making | Ease of accessibility of information and<br>content for agility, effectivity and higher<br>efficiency. Enablement of NEP 2020,<br>NCRF.<br>Integration with other Government<br>Systems/Programs<br>The Proposed List of various types of<br>digital infrastructure required for a College<br>is given in Annexure 2 |
| 3        | Innovative academic<br>Infrastructure                   | Academic excellence, multi-<br>disciplinarity, focused &<br>experienced faculty, flexible<br>curriculum, Innovativeness, all<br>round learning & future<br>readiness, Confidence<br>building.   | Models and pedagogies to make a learner<br>proficient, skills, experience leading to<br>heightened confidence.<br>Teacher-Student Ratio<br>The Proposed List of various components<br>of innovative academic infrastructure<br>required for a College is given in<br>Annexure 3                                      |
| 4        | Research and<br>Intellectual Property<br>Infrastructure | Creating new knowledge &<br>Innovation  | Optimum and Sustained ability to create<br>new knowledge & new innovation (IP)<br>by students & faculties.<br>The Proposed List of various components<br>of intellectual property infrastructure<br>required for a College is given in<br>Annexure 4.  |

#### Annexure 1: List of Physical Infrastructure

| S. No. | Required Physical<br>Infrastructure                                    | Details of physical infrastructure & its usage  |
|--------|--|---|
| 1.     | Central Computer<br>Laboratory   | <ul> <li>A Central Computer Laboratory (CCL) is a dedicated facility equipped with a collection of computers, networking infrastructure, and software resources that serve the computing and information technology needs of an educational institution, organization, or community.</li> <li>CCLs are extensively used for academic activities such as research, coursework, online learning, and collaborative projects. Students can access resources required for assignments, research papers, and presentations.</li> </ul> |
| 2.     | Smart Campus   | • A Smart Campus achieves cost-efficient, comfortable, and resilient operations. It anticipates and resolves issues proactively, ensuring a seamless experience for everyone. It fosters integrated systems, like lighting and security, for optimal performance. Its priorities include facility uptime, on-demand building performance, green initiatives, energy cost management, and tech adoption.   |
| 3.     | Laboratories and<br>Research Centers                                   | <ul> <li>Modern laboratories and advanced super specialty research centers<br/>in a wide variety of scientific and technological fields.</li> <li>Departmental Libraries with reference books &amp; online digital<br/>information resources.</li> </ul>  |
| 4.     | Computer Centre/<br>Multimedia Studios                                 | • Multimedia Studios for creation of digital contents with optimum sound control & recording facilities.  |
| 5.     | Vocational<br>Education,<br>Training and<br>Skilling<br>infrastructure | • Adequate well equipped building space with appropriate equipment, machinery, and tools, including computer labs and technology labs for learning skill/ vocational education as part of course curriculum   |
| 6      | Cafeteria / Canteen  | • Cafeteria / Canteen facility equipped with modern cooking apparatus/equipment to ensure quality, cleanliness, and hygiene.  |

#### Annexure 2: List of Various Types of Digital Infrastructure

| S.<br>No. | Requirement of Digital<br>Infrastructure        | Details of digital infrastructure & its usage  |
|-----------|---|--|
| 1         | Online Study material                           | • Development of study materials both in audio, video, and text form as per the curriculum and providing them to concerned students online as additional support to classroom teaching – learning process. The study material in the form of a PDF book to be stored in a smartphone, tablet, or laptop computer will help provide a ubiquitous reference for the covered portion of the course subjects.                                  |
| 2         | Digital Library                                 | • Developing and updating digital library and providing digital library membership to every stakeholder of the College for ubiquitous access of books, periodicals, study materials, magazines, annual/year books of organizations, journals in digital form is the responsibility of College digital library. For this purpose, the College digital library can collaborate with national digital libraries and Global digital libraries. |
| 3         | Paperless office                                | • By developing academic administrative software, the College should provide an online office environment to cater the services of stakeholders.   |
| 4         | Paperless exams                                 | • Adopting a digital examination system eliminates the wastage of papers in the examination process.   |
| 5         | Online Evaluation                               | • Automated & digitized online evaluation system<br>eliminates the wastage of time of evaluators &<br>speeds up the evaluation process.  |
| 6         | Online admission test                           | • A ubiquitous facility for global admission   |
| 7         | Education ERP                                   | • To integrate various departments of the College for timely exchange & access of information.   |
| 9         | Online placement (Project, internship, & final) | • Online ubiquitous support.   |
| 10        | Video documentation of each course.             | • For open information access from globally  |
| 11        | Video documentation on online public platforms  | • For open information access from globally  |

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#### Annexure 3: List of Various Components of Innovative Academic Infrastructure

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| S.<br>No. | Requirement of<br>Innovative academic<br>infrastructure   | Details of innovative academic infrastructure & its usage  |
|-----------|---|--|
| 1.        | Courses catering to<br>professional/future<br>requirements                                      | <ul> <li>The institutions must provide for giving a varied choice of relevant programs.</li> <li>Courses to allow for in-depth learning of students as per their interest allowing for future growth of the student.</li> <li>Multidisciplinary and relevancy of programs</li> </ul>   |
| 2.        | Curriculum- updated as<br>per industry<br>requirements  | • The curriculum should be updates regularly to cater to the dynamic requirement of the changing employment landscape. Programs to suit the industry requirements both in short term and for future readiness. Industry linked/ internship/ apprenticeship embedded programs. Modularization of curriculum to enable Multiple Entry- Multiple Exit options   |
| 3.        | Curriculum<br>embedded with<br>Employability Skill  | <ul> <li>The curriculum needs to focus on inculcating basic skills important for increasing the employment avenues and readiness.</li> <li>Adding Employability Skills (ESs) across all disciplines like Constitutional values/ Citizenships, universal values; Career Development &amp; Goal Setting; Becoming a professional in 21st Century; Communication Skills; English Skills; Inclusivity and Diversity including Gender sensitization, PwD etc.; Digital Literacy/ Skills/ digital fluency; Financial &amp; Legal Literacy; Start-up management and Entrepreneurship; Customer Service orientation; and Job readiness and exam preparation</li> </ul> |
| 4.        | Curriculum embedded<br>with Skill<br>Enhancement Courses  | • Curriculum to focus on competencies and skills like Critical thinking and problem solving; Creative thinking and innovation; Analytical Thinking; Adaptive Thinking; Design Thinking & Creativity; Computational thinking; Social intelligence; Cross cultural competency; New media literacy; Virtual collaboration; Decision Making; Conflict resolution and negotiations etc  |
| 5.        | Curriculum<br>embedded with<br>Emerging technologies to<br>be integrated with future<br>of work | • HEIs in education & skilling ecosystem need to bring the core<br>skills that are used in the era of digitization<br>and automation like Artificial Intelligence, Cloud Computing,<br>Data Analytics, Machine Language, Cyber Security etc. as also<br>integrate 21 <sup>st</sup> - century digital skills wherever required.   |

| 6.  | Center for Curricular &<br>Life Skills<br>Development (CCLSD)                         | • Development of centers that will continuously upgrade the curriculum and at the same time incorporate 21st century skills in the credit system – which includes communication, collaboration, creativity, problem solving, initiative, emotional stability, physical fitness, confidence to be best at the world stage etc  |
|-----|---|---|
| 7.  | Center for Faculty<br>Development (CFD)   | <ul> <li>Create new projects (aligned to COE), develop expertise and present it in peer conferences and create a platform for continuous improvement</li> <li>Exchange/internship programs with industry to cross pollinate skills</li> </ul>   |
| 8.  | Value added skills<br>enhancement Papers  | <ul> <li>The syllabus must not be restricted to core and elective subjects.</li> <li>Provision of providing modules on general skills for enhancing the employability of the students by improving their professional knowledge.</li> <li>can be introduced as skill development-based value- added papers should be offered as separate papers and taught by industry or professional people in the field.</li> </ul>          |
| 9.  | Flexibility and multidisciplinary   | <ul> <li>The course design needs to be varied, multi- disciplinary in nature</li> <li>Universities can design and implement UG/PG programs to suit the requirement of students at various levels</li> <li>Additional certificate programs across the field may be offered.</li> <li>Universities can also offer certificate programs by having MoUs with industries, reputed international organisations, etc.</li> </ul>       |
| 10. | Opportunities to<br>develop & utilize<br>Research &<br>innovative thinking<br>skills. | <ul> <li>The UG &amp; PG curriculum must allow students to explore and work independently on their projects/research under the guidance of their research guide</li> <li>students should be encouraged to work either individually or in a team.</li> <li>Enhancing the innovative ability of students and increasing their competency and confidence.</li> <li>Organizing Hackathons and other similar competitions</li> </ul> |
| 11. | International Exposure  | <ul> <li>Overseas Exchange programs</li> <li>International Collaboration</li> <li>Foreign Faculty (visiting)</li> <li>International Scholarships</li> <li>International Conferences</li> </ul>  |

### Annexure 4: Lists of Research and Intellectual Property Infrastructure

| S. No. | Requirement of<br>intellectual property<br>infrastructure                                  | Details of intellectual property infrastructure & its generation   |
|--------|--|--|
| 1      | Quality Research   | <ul> <li>increased intake of students in research based curriculum</li> <li>undertaking quality research projects</li> <li>establish quality research facilities and research labs</li> <li>self-sustaining model</li> <li>undertake basic and applied research</li> <li>enable development of disruptive and affordable technologies</li> </ul>   |
| 3      | API based faculty compensation   | <ul> <li>The creation and implementation of a faculty compensation scheme based on Academic Performance Indicator (API) scores encourages faculty participation in research and publication activities.</li> <li>API based compensation creates healthy competition among the faculty members for accelerated IP contribution.</li> </ul>  |
| 4      | Targeted research and collaborative research   | <ul> <li>The institution finds some new fields in several disciplines and helps the competent faculty members in such fields do research, publish papers, and file patents.</li> <li>This is called targeted research and the College can create IPR as well as an international brand through such efforts.</li> </ul>  |
| 5      | More Ph.D. & post-<br>doctoral research scholars   | <ul> <li>The College must admit more research scholars within its capacity of support.</li> <li>The institution should exercise its autonomy to appoint more research professors, who may eventually retire from active employment, only for the purpose of supervising research scholars.</li> <li>Universities should create post-doctoral research programmes as well to maintain the Ph.D. graduates' contributions to ongoing research.</li> </ul>  |
| 6      | Faculty encouragement<br>for Book<br>Publications,<br>Research Publications<br>and Patents | <ul> <li>The College should have a policy to promote IPR contributors, who are none other than UG &amp; PG Students, Research scholars, and Faculty members, in order to increase the intellectual property rights (IPR) of the institution.</li> <li>The institution can improve its IPR infrastructure by setting up supportive policies that stimulate research and publications at all of the aforementioned levels. Such a task will be assisted by numerous incentives and funding plans.</li> </ul> |

| 7  | More conferences (At<br>least two conferences per<br>year per College            | <ul> <li>Research scientists, faculty members, and students are kept active through the periodic organisation of conferences for the presentation of research papers.</li> <li>These conferences offer an opportunity for goal-setting and networking with other academics.</li> </ul>  |
|----|--|---|
| 8  | Student involvement in<br>Research   | <ul> <li>The most valuable resource in the College system is its students, who, when properly supervised, can create innovations by creating patented inventions. Similarly, through systematic research, they can also come out with scholarly publishable results.</li> <li>By involving students at the graduate and postgraduate levels, the College can boost its IPR infrastructure.</li> </ul>                                   |
| 9  | Industry and<br>institutional collaboration<br>&<br>Consultation                 | <ul> <li>Supports collaboration-based research so that the College can create IPR along with industry personnel. This also gives the opportunity to use industry research facilities by College personnel.</li> <li>Further collaborative research leads to more patents &amp; publications.</li> <li>Industries' contribution to the research activities so as to do the research on live projects and quantify the output.</li> </ul> |
| 10 | College Incubation centres   | <ul> <li>College business incubators assist students who want to establish their own companies after graduation.</li> <li>Any ideas generated while working on a project or an internship might be fostered and encouraged as a business plan to initiate self-employment.</li> </ul>   |
| 11 | Compulsory patent claim<br>for UG & PG projects in<br>Professional subject areas | • Setting goals for undergraduate and graduate students in terms of internships and regular mentoring and supervising them as they prepare and submit patent applications for their inventions enhances the outcome.  |

# Annexure 5: List Various Types of Infrastructure for Networking and Collaboration

| S.<br>No | Requirement of<br>Networked<br>infrastructure             | Details of networked infrastructure & its creation   |
|----------|---|--|
| 1        | Collaborations –<br>Horizontal, Vertical &<br>Diversified | <ul> <li>MoUs with Industries both in relevant domains and the local units, other INIs (Institutes of National Importance), other domain institutions (Universities and Collegees)</li> <li>MoUs with research bodies and Think Tanks – specialised inputs</li> <li>Collaborations with the Rural and Urban Local Bodies and communities.</li> </ul>   |
| 2        | Alumni Association &<br>Networks                          | <ul> <li>Alumni connect through Alumni conclaves and meet periodically</li> <li>Domain and Research workshops with Alumni as key partners, Alumni funding for research, infrastructure, and other areas, Alumni's contribution to various ventures and programs of the College and Collegees</li> <li>Creation of Incubation centres to fund start-ups from invertor alums</li> </ul>  |
| 3        | Academic Integrated<br>Collaborations                     | <ul> <li>Collaborating with other academic institutions which have developed their core competency in related academic areas for co-research, co-curriculum design, etc.</li> <li>Synergy for dual degree programs, research internships, etc.</li> <li>Subject MoUs with other domain institutions for training</li> <li>International Collaborations</li> <li>Usage of each other's workshops and Labs and common OJT arrangements.</li> </ul>   |
| 4        | Industry Integrated<br>Collaborations                     | <ul> <li>Industry-based internships and Apprenticeships which may provide for captive placements.</li> <li>Industry partnership in the design of curriculum, and content across the various disciplines</li> <li>Upgradation of curriculum basis the emerging and future skills of the industry</li> <li>Open and Live projects which are a win-win situation both for the industry and the learners</li> <li>Industry can partner with the institutes to create various forms of center of excellence (CoEs) for the dynamic industry needs</li> <li>The integration of hands-on skilling with the curriculum shall only be possible with Industry</li> </ul> |

| 5 | Research Collaborations                                       | <ul> <li>Multiple researching entities working in the same domain can<br/>be a force multiplier to lead to faster and better outcomes.</li> <li>Research databases may be shared so as to have access to<br/>better data sources and research methodologies and tools</li> <li>Access to each other's libraries, journals – physical and cloud</li> <li>International Research Projects, Government led research<br/>Projects</li> </ul>   |
|---|---|--|
| 6 | Consultancy<br>Collaborations                                 | • Faculty-based consultancy needs to be promoted as this brings in additional revenues as well as makes the faculty up to date with contemporary industrial and client practices.  |
| 7 | Placement Collaborations                                      | • The College should develop networking with local, national, and international companies of many industry sectors both for training the students during the internship and to provide campus job placement services.  |
| 8 | Collaborations with<br>NGOs & Social service<br>Organizations | <ul> <li>Rural outreach, Fieldwork, Participatory Rural Appraisal (PRA) for sensitising and crediting the rural immersion for both faculty and student</li> <li>Partnering with government programs such as Unnat Bharat Abhiyan (UBA), National Service Scheme (NSS), etc. for the same cause</li> <li>Operating on technical and non-technical areas for areas such as capacity building, extension services, product development, and usage for the betterment of the catchment area.</li> <li>Creating possibilities for rural internships and development internships.</li> <li>Partnering with local, global, and national NPOs, NGOs, development organizations, etc. among others for the identification of key areas of development in the vicinity.</li> </ul> |
| 9 | Startup Network<br>Infrastructure                             | <ul> <li>Incubation centers - generic and domain-specific</li> <li>Funding tracks for the startups</li> <li>Ideation and network boards for startups</li> <li>Digital Infrastructure for supporting startups</li> </ul>  |