

Date: 25/04/2024

Institutional Development Plan

Academic Year 2023-24 to Academic Year 2028-29

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

Annexure 1: List of Physical Infrastructure

S. No.	Required Physical Infrastructure	Details of physical infrastructure & its usage
1.	Central Computer Laboratory	 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. 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.
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 Research Centers	 Modern laboratories and advanced super specialty research centers in a wide variety of scientific and technological fields. Departmental Libraries with reference books & online digital information resources.
4.	Computer Centre/ Multimedia Studios	• Multimedia Studios for creation of digital contents with optimum sound control & recording facilities.
5.	Vocational Education, Training and Skilling 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. No.	Requirement of Digital 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 eliminates the wastage of time of evaluators & 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

12

Annexure 3: List of Various Components of Innovative Academic Infrastructure

•

S. No.	Requirement of Innovative academic infrastructure	Details of innovative academic infrastructure & its usage	
1.	Courses catering to professional/future requirements	 The institutions must provide for giving a varied choice of relevant programs. Courses to allow for in-depth learning of students as per their interest allowing for future growth of the student. Multidisciplinary and relevancy of programs 	
2.	Curriculum- updated as per industry 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 embedded with Employability Skill	 The curriculum needs to focus on inculcating basic skills important for increasing the employment avenues and readiness. Adding Employability Skills (ESs) across all disciplines like Constitutional values/ Citizenships, universal values; Career Development & 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 & Legal Literacy; Start-up management and Entrepreneurship; Customer Service orientation; and Job readiness and exam preparation 	
4.	Curriculum embedded with Skill 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 embedded with Emerging technologies to be integrated with future of work	 HEIs in education & skilling ecosystem need to bring the core skills that are used in the era of digitization and automation like Artificial Intelligence, Cloud Computing, Data Analytics, Machine Language, Cyber Security etc. as also integrate 21st- century digital skills wherever required. 	

6.	Center for Curricular & Life Skills 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 Development (CFD)	 Create new projects (aligned to COE), develop expertise and present it in peer conferences and create a platform for continuous improvement Exchange/internship programs with industry to cross pollinate skills
8.	Value added skills enhancement Papers	 The syllabus must not be restricted to core and elective subjects. Provision of providing modules on general skills for enhancing the employability of the students by improving their professional knowledge. 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.
9.	Flexibility and multidisciplinary	 The course design needs to be varied, multi- disciplinary in nature Universities can design and implement UG/PG programs to suit the requirement of students at various levels Additional certificate programs across the field may be offered. Universities can also offer certificate programs by having MoUs with industries, reputed international organisations, etc.
10.	Opportunities to develop & utilize Research & innovative thinking skills.	 The UG & PG curriculum must allow students to explore and work independently on their projects/research under the guidance of their research guide students should be encouraged to work either individually or in a team. Enhancing the innovative ability of students and increasing their competency and confidence. Organizing Hackathons and other similar competitions
11.	International Exposure	 Overseas Exchange programs International Collaboration Foreign Faculty (visiting) International Scholarships International Conferences

Annexure 4: Lists of Research and Intellectual Property Infrastructure

S. No.	Requirement of intellectual property infrastructure	Details of intellectual property infrastructure & its generation
1	Quality Research	 increased intake of students in research based curriculum undertaking quality research projects establish quality research facilities and research labs self-sustaining model undertake basic and applied research enable development of disruptive and affordable technologies
3	API based faculty compensation	 The creation and implementation of a faculty compensation scheme based on Academic Performance Indicator (API) scores encourages faculty participation in research and publication activities. API based compensation creates healthy competition among the faculty members for accelerated IP contribution.
4	Targeted research and collaborative research	 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. This is called targeted research and the College can create IPR as well as an international brand through such efforts.
5	More Ph.D. & post- doctoral research scholars	 The College must admit more research scholars within its capacity of support. 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. Universities should create post-doctoral research programmes as well to maintain the Ph.D. graduates' contributions to ongoing research.
6	Faculty encouragement for Book Publications, Research Publications and Patents	 The College should have a policy to promote IPR contributors, who are none other than UG & PG Students, Research scholars, and Faculty members, in order to increase the intellectual property rights (IPR) of the institution. 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.

7	More conferences (At least two conferences per year per College	 Research scientists, faculty members, and students are kept active through the periodic organisation of conferences for the presentation of research papers. These conferences offer an opportunity for goal-setting and networking with other academics. 	
8	Student involvement in Research	 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. By involving students at the graduate and postgraduate levels, the College can boost its IPR infrastructure. 	
9	Industry and institutional collaboration & Consultation	 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. Further collaborative research leads to more patents & publications. Industries' contribution to the research activities so as to do the research on live projects and quantify the output. 	
10	College Incubation centres	 College business incubators assist students who want to establish their own companies after graduation. Any ideas generated while working on a project or an internship might be fostered and encouraged as a business plan to initiate self-employment. 	
11	Compulsory patent claim for UG & PG projects in Professional subject areas	internships and regular mentoring and supervising them as they	

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

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

5	Research Collaborations	 Multiple researching entities working in the same domain can be a force multiplier to lead to faster and better outcomes. Research databases may be shared so as to have access to better data sources and research methodologies and tools Access to each other's libraries, journals – physical and cloud International Research Projects, Government led research Projects
6	Consultancy 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 NGOs & Social service Organizations	 Rural outreach, Fieldwork, Participatory Rural Appraisal (PRA) for sensitising and crediting the rural immersion for both faculty and student Partnering with government programs such as Unnat Bharat Abhiyan (UBA), National Service Scheme (NSS), etc. for the same cause 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. Creating possibilities for rural internships and development internships. Partnering with local, global, and national NPOs, NGOs, development organizations, etc. among others for the identification of key areas of development in the vicinity.
9	Startup Network Infrastructure	 Incubation centers - generic and domain-specific Funding tracks for the startups Ideation and network boards for startups Digital Infrastructure for supporting startups



Energy Audit Report Poona College of Arts, Science, and Commerce, Camp, Pune

Academic Year: 2023-2024

1. Introduction:

A Green Audit is a systematic evaluation of an institution's environmental practices, resource utilization, and sustainability efforts. This process helps identify areas for improvement while fostering ecological balance and sustainability. The Energy Audit conducted for Poona College of Arts, Science, and Commerce for the academic year 2023-2024 assesses environmental impacts, promotes sustainable practices, and enhances environmental awareness among students and staff.

2. Objectives:

- 1. To assess the current status of the institution's environmental practices.
- 2. To evaluate energy management on campus.
- 3. To identify improvement opportunities and recommend eco-friendly alternatives.
- 4. To cultivate environmental consciousness among all stakeholders.

3. Key Areas of Focus:

3.1 Energy Usage:

- Sources of Electricity: The campus primarily depends on conventional grid electricity, supplemented by renewable energy through solar street lights.
- Renewable Energy Installations: 06 solar street lights are operational on campus.

3.2 Energy Management:

- Replace all incandescent and CFL lights with LED fixtures.
- Install solar street light to reduce dependence on conventional electricity.
- Conduct regular energy audits to identify inefficiencies.

Findings:

- 1. Significant dependence on conventional energy sources.
- 2. Partial implementation of renewable energy practices.
- 3. Energy-efficient LED lighting has been installed in all parts of the campus.



4. Survey Data and Analysis:

4.1 Energy and Lighting Usage:

Power Consumption Calculation:

Sr. No	Appliance	Quantity	Wattage (W)	Total Consumption (Wh)
1.	Incandescent Tube Lights	20	40	800
2.	CFL Tube Lights	12	20	240
3.	LED Tube Lights	422	20	8,440
4.	Incandescent Bulbs	9	60	540
5.	LED Bulbs	249	15	3,735
6.	LED Halogen Lights	6	100	600
7.	Solar Street Lights	6	50	300
8.	Computers	297	100	29,700
9.	LCD Projectors	56	200	11,200
10.	Air Conditioners	23	1,500	34,500

Approximate Summary of Power Consumption (1 Hour)

Approximate Total Power Consumption (1 Hour): 89.055kWh

5. Recommendations:

- I. Transition to Renewable Energy:
 - 1. Expedite the installation of rooftop solar panels to reduce dependence on grid electricity.
 - 2. Increase the number of solar street lights to further incorporate renewable energy solutions.

II. Optimize Energy Use of High-Consumption Appliances:

- 1. Air Conditioners: Implement a scheduled usage policy to minimize energy consumption, especially during non-peak hours. Regular maintenance should be ensured to improve efficiency.
- 2. Computers: Encourage power-saving settings (e.g., sleep mode) and turn off unused system.



Anjuman Khairul Islam's **POONA COLLEGE** OF ARTS, SCIENCE & COMMERCE Affiliated to Savitribai Phule Pune University: ID No PIU/PN/ASC/023/1970

- Affiliated to Savitribai Phule Pune University: ID No PU/PN/ASC/023/1970
- UGC 2(f) & 12 (B) Status
 OST FIST Funded College
 - Government of Maharashtra and Savitribai Phule Pune University Recognized Minority College
- K. B. Hidayatullah Road, Camp, 😰 +91-20-2645 4240 principal@poonacollege.edu.in Pune 411001 (MS) India 2644 6319.

III. Complete Transition to LED Lighting:

1. Replace remaining incandescent and CFL lights with LED fixtures to achieve full energy efficiency. This will also reduce overall lighting-related energy consumption.

IV. Conduct Energy Awareness Campaigns:

1. Educate staff and students on energy conservation practices, such as turning off lights, fans, and computers when not in use.

V. Install Smart Energy Monitoring Systems:

1. Deploy energy meters to monitor real-time energy usage for specific appliances and identify further areas for optimization.

6. Impact of Recommendations:

Implementing these recommendations is expected to:

- Reduce energy costs: Transitioning to LEDs and optimizing air conditioner usage can lower overall electricity bills.
- **Promote sustainability:** Increased reliance on renewable energy sources will reduce the college's carbon footprint.
- Enhance energy efficiency: Awareness campaigns and better management will lead to sustained reductions in energy consumption.

7. Conclusion

The data reveals significant power consumption from air conditioners and computers, contributing to the majority of electricity usage. Transitioning to energy-efficient appliances and increasing the use of renewable energy sources, such as solar power, could reduce the overall energy consumption and operational costs for the Poona College of Arts Science and Commerce camp Pune.

Dr. Shirin Shaikh, Vice- Chairman Energy Audit Committee and IQAC, Coordinator,

Dr. Shirin Shaikh Coordinator Internal Quality Assurance Cell (IQAC) AKI's Poona College of Arts, Science & Commerce, Pune-1

Dr. Iqbal N. Shaikh Chairman Energy Audit Committee and Principal

Dr. IQBAL N. SHAIKH I/C PRINCIPAL Y & M Anjuman Khairul Islam's 'Poona College of 'Arts, Science & Commerce, Camp, Pune-411001



Green Audit Report Poona College of Arts, Science, and Commerce, Camp, Pune Academic Year: 2023-2024

1. Introduction:

A Green Audit is a systematic evaluation of an institution's environmental practices, resource utilization, and sustainability efforts. This process helps identify areas for improvement while fostering ecological balance and sustainability. The Green Audit conducted for Poona College of Arts, Science, and Commerce for the academic year 2023-2024 assesses environmental impacts, promotes sustainable practices, and enhances environmental awareness among students and staff.

2. Objectives:

- 1. To assess the current status of the institution's environmental practices.
- 2. To evaluate water, waste, and biodiversity management on campus.
- 3. To identify improvement opportunities and recommend eco-friendly alternatives.
- 4. To cultivate environmental consciousness among all stakeholders.

3. Key Areas of Focus:

3.2 Water Management:

- Water Sources: The campus uses municipal water supply and one bore well.
- Water Usage:
 - 1. Water is used for drinking, sanitation, gardening, and laboratories.
 - 2. A rainwater harvesting system is in place for groundwater recharge.

Findings:

- 1. Efficient water management practices have been implemented.
- 2. The rainwater harvesting system requires expansion and enhanced monitoring.

3.3 Waste Management:

- Types of Waste Generated:
 - 1. Biodegradable: Food waste, garden waste.
 - 2. Non-Biodegradable: Plastic, paper, e-waste.
 - 3. Hazardous Waste: Laboratory chemicals.



Anjuman Khairul Islam's **POONA COLLEGE** OF ARTS, SCIENCE & COMMERCE Arit Mahotsav

- Affiliated to Savitribai Phule Pune University: ID No PU/PN/ASC/023/1970
- UGC 2(f) & 12 (B) Status
 OST FIST Funded College
- Government of Maharashtra and Savitribai Phule Pune University Recognized Minority College



• Management Practices:

- 1. Biodegradable waste is composted on-site.
- 2. Non-biodegradable waste is managed through the Adar Poonawalla Clean City Initiative.
- 3. E-waste is outsourced to a certified vendor.
- 4. Hazardous waste is disposed of per regulatory norms.

Findings:

1. Composting of biodegradable waste is functional and effective.

3.4 Biodiversity on Campus

- Flora and Fauna:
 - 1. The campus has diverse vegetation, including ornamental plants, trees, and a small garden area.
 - 2. Bird species observed on campus enhance ecological balance.
- Green Coverage:
 - 1. Total Green Area: 37% of the campus.
 - 2. Number of Trees: 201, including 109 ornamental species.
 - 3. Garden Areas: Four small gardens with lawns and ornamental plants.

Findings:

- 1. The campus has well-maintained green spaces.
- 2. Opportunities exist to expand biodiversity through tree plantation drives and establishing a botanical garden.
- 4.2 Water Management:
 - Rainwater Harvesting Systems: 1 functional system.
 - Bore well on Campus: 1.

4.3 Waste Segregation and Disposal:

Sr. No.	I vne of Waste Vlanagement Practic		Status	
1.	Biodegradable	Vermicomposting to bio-fertilizer	Functional	
2.	Non-Biodegradable	Disposal via Adar Poonawalla Clean City	Functional	
3.	E-Waste	-Waste Outsourced to a certified vendor		
4.	Hazardous Waste	Disposal as per regulatory norms	Functional	



Anjuman Khairul Islam's **POONA COLLEGE** of ARTS, SCIENCE & COMMERCE • Affiliated to Savitribai Phule Pune University: ID No PU/PN/ASC/023/1970

UGC - 2(f) & 12 (B) Status
 OST - FIST Funded College

Government of Maharashtra and Savitribai Phule Pune University Recognized
Minority College

0

K. B. Hidayatullah Road, Camp, Cune - 411001 (MS) India

+91-20-2645 4240 prir 2644 6319. www

principal@poonacollege.edu.in www.poonacollege.edu.in



5. Findings and Observations:

5.1 Water Management:

- 1. Functional rainwater harvesting system, but scalability is needed.
- 2. Water supply meets current demands.

5.2 Biodiversity:

- 1. Rich green cover supports diverse flora and fauna.
- 2. Potential to increase biodiversity through targeted initiatives.

6. Recommendations:

6.1 Water Management:

- Expand rainwater harvesting systems across the campus.
- Install water meters for real-time consumption monitoring.
- Conduct awareness campaigns on water conservation.

6.2 Biodiversity and Green Coverage:

- Organize regular tree plantation drives to increase green cover.
- Develop a botanical garden for educational and ecological purposes.
- Install bird feeders and water points to support local fauna.

7. Conclusion:

The Green Audit for Poona College of Arts, Science, and Commerce has highlighted commendable efforts in sustainability while identifying areas for further improvement. Implementing the recommended actions will enhance the college's environmental performance, reduce its ecological footprint, and position it as a model for sustainable academic institutions.

Dr. Shirin Shaikh, Vice- Chairman Green Audit Committee and IQAC, Coordinator,

Dr. Shirin Shaikh Coordinator Internal Quality Assurance Cell (IQAC) AKI's Poona College of Arts, Science & Commerce, Pune-1

Dr. Iqbal N. Shaikh Chairman Green Audit Committee and Principal

I/C PRINCIPAL Y & MAnjuman Khairul Islam's Poona College of Arts, Science & Commerce, Camp, Pune-411001