OFFICE OF THE REGIONAL DIRECTOR OF EDUCATION, SAMBALPUR.

No. 2322 //RDE., Dt. 28-06-23

To

The Principals of all Colleges

Smooth functioning of colleges regarding. Sub: -

Sir/Madam,

In inviting a reference to the subject cited above, I am to request you to ensure the following points for smooth functioning of your colleges as new academic session 2023-24 has already been started.

- Bio-metric attendance of all the employees on regular basis. (1)
- Seven hour stay of all employees in college. (2)
- Maintenance of plan and progress registers of all the teachers. (3)
- Nacrotic and tobacco free campus. (4)
- Anti-ragging and Anti sexual harassment cell should function (5)properly.
- Clean and green campus be maintained. (6)

Yours faithfully,

Regional Director.

Memo No. 2525 // RDE., dt. 28 - 06 - 23

Copy submitted to the P.S to Commissioner-cum-Secretary to Government, Department of Higher Education, Odisha, Bhubaneswar for information.

Regional Director.



GOVERNMENT COLLEGE, SUNDARGARH

Environmental Policy

GCS/EP/01 Revision 00 Issued 27/05/2023





ENVIRONMENTAL POLICY

Government College, Sundargarh is committed to environmental sustainability and recognizes the importance of protecting and preserving the environment for present and future generations. We strive to minimize our environmental impact and promote sustainable practices throughout our operations, education programs, and campus community.

Key Principles:

- 1. Compliance: We are dedicated to complying with all applicable environmental laws, regulations, and permits, as well as other requirements to which we subscribe. We continuously monitor and assess our compliance status and take proactive measures to ensure adherence to environmental standards.
- 2. Pollution Prevention: We aim to prevent pollution by reducing, reusing, and recycling materials wherever possible. We encourage responsible consumption and waste management practices, including the reduction of energy and water usage, proper waste segregation, and the promotion of sustainable procurement.
- 3. Resource Efficiency: We are committed to conserving natural resources by promoting efficient resource use across our facilities. This includes implementing energy-efficient technologies, optimizing water consumption, and encouraging sustainable transportation options for our students, faculty, and staff.
- 4. Environmental Education: We believe in the power of education to drive positive environmental change. We integrate environmental education and awareness initiatives into our curriculum, empowering our students to become environmentally responsible individuals and future environmental leaders.
- 5. Biodiversity and Ecosystem Protection: We recognize the importance of biodiversity and the preservation of ecosystems. We strive to protect and restore natural habitats on our campus, promote sustainable landscaping practices, and raise awareness about the value of biodiversity among our students and the wider community.
- 6. Collaboration and Stakeholder Engagement: We actively engage and collaborate with our stakeholders, including students, faculty, staff, local communities, regulatory authorities, and industry partners. By fostering open dialogue and partnerships, we aim to identify and implement innovative solutions that address environmental challenges collectively. Principal
 Government College
 Sundargarh



7. Continuous Improvement: We are committed to continuously improving our environmental performance. We set measurable objectives and targets, regularly monitor our progress, and implement corrective actions when necessary. Through periodic management reviews, we assess the effectiveness of our environmental management system and strive for continual improvement.

This environmental policy is communicated to all students, faculty, staff, and stakeholders. It serves as a guiding framework for our environmental decision-making, planning, and actions. We are dedicated to promoting a culture of sustainability and environmental stewardship at Sarbati Devi Women's College.





QUALITY MANUAL

GOVERNMENT COLLEGE, SUNDARGARH

ISO 9001:2015

Quality Management System





Revision History					
Date	Rev Number	Description			
27/05/2023	00	Initial Issue			

Prepared by-	Approved by-	
Name: Alok Kumar Naik	Name: Dr. Lalit Ranjan Sahu	
Designation: IQAC Co-ordinator	Designation: PRINCIPAL	
Government College, Sundargarh	Government College, Sundargarh	

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PREFACE

The Quality Manual of Government College, Sundargarh documents the structure and design of the College's Quality Management System (QMS), the interconnectedness of the processes that constitute the system, and the operational arrangements which support the quality assurance activities and academic standards at the College.

This document articulates college's commitment to quality and continuous improvement. It gives an outline of the key processes with references to policies and procedures relevant to QMS, and provides a holistic and integrative view of the quality management of the university's activities. The activities and practices that are described apply to the entire university communities.

Principal
Principal
Government College
Sundargarh



INSTITUTE PROFILE

Govt. College Sundargarh occupies pride of place in the educational landscape of Odisha. The college owes its origin to the drive, initiative and strong determination of the general public of Sundargarh and their intense yearning for quality education. Previously known as Sundargarh Science College, it had a humble and modest beginning. Founded by the dynamic, enterprising and visionary District magistrate of Sundargarh Sri A.L. Nair with the help of generous donations from the enthusiastic public, the college saw the light of day on 07 February, 1958. Thus, it fulfilled the long felt need for higher education among the tribal, socially backward and economically deprived sections of the society in the region. Initially, the college was housed in the hired building of the Nari Kalyan Kendra and Biramitra Club with 64 students in the I.Sc. Class. About a year later, it was moved to its own building constructed on the bank of the river IB, one and a half miles away from the heart of the town.





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PDCA at Government College, Sundargarh (refer 4.4)

Government College, Sundargarh adopts a process approach in implementing and improving the effectiveness of a Quality Management System to enhance customer satisfaction. Understanding and managing interrelated process as a system, contributes to the institution effectiveness and efficiency in achieving its intended results. This approach enables the institution to control the interrelationships and interdependencies among the processes of the system, so that the overall performance of the institution can be enhanced. Management of the processes and the system can be achieved using the PDCA cycle with an overall focus on risk-based thinking aimed at taking advantage of opportunities to prevent undesirable results.

The PDCA cycle denotes:

- Plan: establish the objectives of the system and its processes, and the resources needed to deliver results in accordance with customers 'requirements and the Institution's policies.
- Do: Implement what was planned.
- Check: Monitor and measure processes and the resulting products and services against policies, objectives and requirements and report the results.
- Act: Take actions to improve performance, as necessary.

Schematic representation of process and its interactions

The process flow chart given below is a representation of the process followed in the institution and the interaction of its elements and its controls. The various entities shown in the diagram include:

- Admission Process
- Teaching Learning Process
- Evaluation Process
- Student Support
- Placement & Progression
- Physical Facilities
- Extension activities and best practices
- Internal Quality Assurance Cell (IQAC)





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1. SCOPE

We shall apply requirements of ISO 9001:2015 for demonstrating our ability to consistently provide service that meets Student and applicable statutory and regulatory requirements.

We aim to enhance Student satisfaction through the effective application of the system, including processes for continual improvement of the system and assurance of conformity to Student and applicable statutory and regulatory requirements.

All requirements of international standard ISO 9001:2015 are applicable to our organization scope mentioned that is "Providing Educational Services leading to Under Graduate, Post Graduate and B.Ed. Degrees"

Principal

Government College
Sundargarh



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2. NORMATIVE REFERENCE

The following guidelines are followed by the college for it entire processes and documentation

- NAAC
- Quality Policy and benchmarks set by the IQAC of the college
- Guidelines of UGC,
- National Council of Teacher Education

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Sundargarh



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3. TERMS AND DEFINITIONS

Terms and definitions are according to ISO 9001:2015 standard

Definitions:

- a. **Continual Improvement:** Recurring activity to increase the ability to fulfil the requirements.
- b. **Correction:** Action taken to eliminate the detected non-conformity.
- c. Corrective Action: Action taken to eliminate the causes of detected non-conformity.
- d. **Documented Procedure:** The procedure which is established, documented, implemented and maintained.
- e. **Effective Date:** Date from which the latest revision of a document is valid.
- f. **Non- Conformity:** Non-fulfilment of requirement.
- g. Outsource Process: It is a process that the organization needs for its Quality Management System and which the organization chooses to have performed by an external party.
- h. **Quality:** Degree to which a set of inherent characteristic fulfils requirements.
- i. **Process:** An activity or set of activities using resources, and managed in order to enable the transformation of input into outputs, can be considered as a process.
- j. **Process Approach:** The application of a system of processes within an organization, together with the identification and interactions of these processes, and their management to produce the desired outcome, can be referred as to as the "process approach".
- k. **Product:** It means "service". The term "product" only applies to a) service intended for, or required by a student, b) any intended output resulting from the product realization process.
- l. **Risk:** Risk is the possibility of events or activities which obstruct the achievement of an organization's strategic and operational objectives.
- m. Statutory & Regulatory Requirement: can be expressed as legal requirements.
- n. **Work Environment:** The term work environments relate to those conditions under which work is performed including physical, environmental, and other factors (such as noise, temperature, humidity lighting and weather).





4. CONTEXT OF THE ORGANIZATION

4. 1 Understanding the Organization and its Context

Government College, Sundargarh has established, implemented, documented, and maintained a Quality management system to ensure that the services provided by the institution conforms to customer requirements and to ensure that appropriate control is exercised on the activities having an impact on quality. Opportunities for continually improving the institutional performance in terms of the quality parameters as per the requirements of the ISO 9001:2015 international standards are also identified in the following external domains.

- Legal
- Technological
- Competitive Market
- Cultural
- Social
- Economic
- Environment

GOVERNMENT COLLEGE, SUNDARGARH also emphasises on:

- Values
- Culture
- Knowledge
- Performance

External and Internal issues are listed in **Annex-1**. We monitor and reviews information about these external and internal issues.

4. 2 Understanding the Needs and Expectations of Interested Parties

Due to their effect or potential effect on Government College, Sundargarh ability to consistently provide education that meet students and applicable statutory and regulatory requirements, Institute determined:

- The interested parties that relevant to the quality management system;
- The requirements of these interested parties that are relevant to the quality management system.

Needs and Expectation of interested parties are defined in $\mathbf{Annex} - \mathbf{2}$. Institute monitors and reviews the information about these interested parties and their relevant requirements.

The ISO Committee is responsible for preparation and updating of the Quality management systems manual and processes having institution wide applicability, which are referred to in this manual.





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4. 3 Determining the Scope of the Quality Management System

The scope of the quality management system at Government College, Sundargarh is determined by Internal Quality Assurance Cell (IQAC). The IQAC plays a key role in planning, monitoring, and evaluating the academic and co-academic activities of the college. The IQAC devises academic calendar at the beginning of every academic year as per the directives of Higher Education. The IQAC is instrumental in bringing positive change in the administrative and academic functions of the college. The quality of an institution is ascertained based on the academic excellence of the students, pedagogic calibre of the teachers and the administrative functioning of an institution as a whole. In the current scenario of education system, the rapid advancement in education technology brought up a perceptible change in conventional teaching, learning and evaluation methodology to raise the understanding levels of students. Here IQAC plays a vital role in quality enhancement by promoting research culture in the campus, need based sessions for the faculty, technical staff and students.

Objectives of IQAC at GOVERNMENT COLLEGE, SUNDARGARH:

- Identify potential areas for quality enhancement
- Setting up and Redefining quality benchmarks in academics and co-academics
- Promoting research culture in the campus
- Quality enhancement and sustenance in Teaching-Learning and Evaluation (TLE)
- Promoting novel and innovative ideas
- To decentralize the decision-making process and ensuring participation of all the stakeholders.

Functions of IQAC at GOVERNMENT COLLEGE, SUNDARGARH:

- Development and Application of Quality benchmarks for various academic, co academic, extra-curricular and administrative activities of the institution.
- Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process.
- Arrangement for feedback responses from the stakeholders on quality related institutional processes.
- Dissemination of information on various quality Parameters of Higher Education.
- Organize intra and inter institutional workshops, seminars on quality related themes.
- Documentation of the various programmes/activities leading to quality improvement.
- Acting as a nodal agency of the institution for coordinating quality-related activities, including adoption of best practices.
- Development and Maintenance of institutional database through MIS for the purpose of maintaining/enhancing the institutional quality.
- Development of quality culture in the campus.





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- Preparation of Annual Quality Assurance Report (AQAR) as per the guidelines and parameters of NAAC, to be submitted to the NAAC.
- Promote Research Culture in the Campus.
- Develop Quality assurance, enhancement and sustenance strategies for students, teachers and alumni & monitor its functioning.
- Promote innovative learning techniques to facilitate student-centric learning ambience.

When determining this scope, GOVERNMENT COLLEGE, SUNDARGARH considered:

- The external and internal issues;
- The requirements of relevant interested parties;
- The services of Institute

The institute applies all the requirements of this International Standard if they are applicable within the determined scope of its quality management system.

Scope of Registration:

The Scope associated with GOVERNMENT COLLEGE, SUNDARGARH activities and registration is:

"Providing Educational Services leading to Under Graduate, Post Graduate and B.Ed. Degrees"

4. 4 Quality Management System and its Processes

Institute has established, implemented, maintains, and continually improves a quality management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard. Detail of the courses are available in $\mathbf{Annex} - 3$.

Ensuring quality by adding professional impetus to all the programmes and activities, the IQAC follows the functional model of Planning, Implementation Mentoring & Monitoring and Evaluation.





5. LEADERSHIP

5. 1 Leadership and Commitment

5.1.1 GENERAL

The principal exhibits leadership and commitment with respect to the quality management system by:

- a) Taking accountability for the effectiveness of the quality management system;
- b) Ensuring that the quality policy and quality objectives established for the quality management system and are compatible with the context and strategic direction of GOVERNMENT COLLEGE, SUNDARGARH;
- c) Ensuring the integration of the quality management system requirements into GOVERNMENT COLLEGE, SUNDARGARH's educational process;
- d) Promoting the use of the process approach and risk-based thinking;
- e) Ensuring that the resources needed for the quality management system are available;
- f) Communicating the importance of effective quality management and of conforming to the quality management system requirements;
- g) Ensuring that the quality management system achieves its intended results;
- h) Engaging, directing and supporting persons to contribute to the effectiveness of the quality management system;
- i) Promoting improvement; and
- j) Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

5.1.2 CUSTOMER FOCUS

The principal demonstrates leadership and commitment with respect to customer focus by ensuring that:

- Students and applicable statutory and regulatory requirements are determined, understood, and consistently met;
- The risks and opportunities that can affect conformity of educational system and the ability to enhance student satisfaction are determined and addressed; and
- The focus on enhancing student satisfaction is maintained.





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5. 2 Policy

Top management has established, implemented, and maintains a quality policy that:

- Is appropriate to the purpose and context of GOVERNMENT COLLEGE, SUNDARGARH and supports its strategic direction;
- Provides a framework for setting quality objectives;
- Includes a commitment to satisfy applicable requirements; and
- Includes a commitment to continual improvement of the quality management system.

The Quality Policy:

- is available and maintained as documented information;
- is displayed within the organization; and
- is available to relevant interested parties, as appropriate.

5. 3 Organizational Roles, Responsibilities, and Authorities

Top management ensures that the responsibilities and authorities for relevant roles are assigned, communicated, and understood within GOVERNMENT COLLEGE, SUNDARGARH. Organization structure is available in **Annex -4.**

Top management assigns the responsibility and authority for:

- Ensuring that the quality management system conforms to the requirements of this International Standard;
- Ensuring that the processes are delivering their intended outputs;
- Reporting on the performance of the quality management system and on opportunities for improvement, in particular to top management;
- Ensuring the promotion of student focus throughout the college; and
- Ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.

Roles and Responsibilities are available in **Annex-5**





6. PLANNING

Purpose:

Establish, maintain, and implement procedure to adopt 'Risk Based Thinking' to determine the risks and opportunities of the processes needed for the quality management system, their application throughout the organization and the appropriate actions to address them.

Scope:

The procedure is applicable for challenges and opportunities of the processes needed for the quality management system of the Institution.

Responsibility:

IQAC, Academic in Charge, HODs, Course Coordinators and Respective Class counsellors

6. 1 Actions to Address Risks and Opportunities

When planning for the quality management system, GOVERNMENT COLLEGE, SUNDARGARH considered the issues referred to in 4.1 and the requirements referred to in 4.2 and determined the risks and opportunities that need to be addressed to:

- Give assurance that the quality management system can achieve its intended results;
- Enhance desirable effects:
- Prevent, or reduce, undesired effects; and
- Achieve improvement.

GOVERNMENT COLLEGE, SUNDARGARH plans:

- Actions to address these risks and opportunities;
- ➤ How to:
 - Integrate and implement the actions into its quality management system processes
 - Evaluate the effectiveness of these actions.

Actions taken to address risks and opportunities are proportionate to the potential impact on the conformity of services.

Refer SOP for Risk & Opportunities GCS/SOP/RO/01

6. 2 Quality Objectives and Planning to Achieve Them

- Institute established quality objectives for all functions of the quality management system based on applicable requirements and it is evolved from quality policy.
- It is ensured that quality objectives are measurable.
- Each departmental quality objective has correlation with the quality policy and organizational quality objectives.
- Quality objectives are relevant to conformity of service we provide.
- These help to enhance student's satisfaction.
- Quality objectives are communicated to relevant employees.





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• Quality objectives are updated when appropriate during management review by Principal in coordination with IQAC.

IQAC Co-ordinator, HODs, Course Co-ordinators plan to achieve relevant quality objectives

- Action to be taken
- Resources requirement
- Responsibility to whom
- Time frame to achieve quality objective
- How to evaluate results of quality objectives?

Based on the same, objective and realization plan is available in Annex-6

6.3 Planning of Changes

When GOVERNMENT COLLEGE, SUNDARGARH determines the need for changes to the quality management system, the changes are carried out in a planned manner

GOVERNMENT COLLEGE, SUNDARGARH considers:

- The purpose of the changes and their potential consequences;
- The integrity of the quality management system;
- The availability of resources; and
- The allocation or reallocation of responsibilities and authorities.





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7. SUPPORT

7. 1 Resources

7.1.1 General

Institute determines and provides the resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system.

GOVERNMENT COLLEGE, SUNDARGARH considers:

- The capabilities of, and constraints on, existing internal resources; and
- What needs to be obtained from the external providers.

7.1.2 People

GOVERNMENT COLLEGE, SUNDARGARH determines and provides the persons necessary for the effective implementation of its quality management system and for the operation and control of its processes.

Organisation Chart:





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7.1.3 Infrastructure

GOVERNMENT COLLEGE, SUNDARGARH determines, provides, and maintains the environment necessary for the operation of its processes and to achieve conformity of services. Infrastructures are including but not limited to-

- Appropriate colouring, interior design, good housekeeping of building is maintained.
- Toilet facility, drinking water facility, playground, telephone and internet facility are • provided while designing Institute infrastructure.
- Sports infrastructure is adequately planned and maintained.
- Computer Laboratories are created with enough computer systems of suitable configuration and necessary supporting software
- All the computers are equipped with Internet facility and connected in LAN.
- Waiting space is provided for visitors.
- Sufficient furniture is provided whenever required.
- Lockers/cupboards are provided in staff common rooms.
- CCTV are installed at prominent places to ensure safety.
- Adequate number of classrooms are available with good ventilation, sunlight, furniture, blackboard, electrical light fittings and ceiling fans.
- Air conditions are installed at seminar hall, Conference room, Auditorium and Administrative Offices & Staff rooms

Library:

The library is equipped with 67055 volumes of books in all subjects offered by the college, as well as books of general knowledge and information, competitive exams and a wide range of fiction and non-fiction. Besides, the library has reference Books which can be used in the library itself. Library Resources also include numerous newspapers, journals, magazines. Apart from above, library automation is under process.

Communication System

- Institute Web site
- Batch wise WhatsApp Groups of students
- Institute Facebook Page
- Notice boards
- Learning Management System

7.1.4 Environment for the operation of processes

GOVERNMENT COLLEGE, SUNDARGARH determines, provides and maintains the environment necessary for the operation of its processes and to achieve conformity of services.

Social Environment

- The following committees/cells are set by the institute to address certain issues pertaining to stakeholders:
 - a) Anti-Ragging committee





- b) Grievance Redressal Cell
- c) NSS, NCC, YRC

Psychological Environment

• Principal counsels the faculty as and when required.

Physical Environment

- Good housekeeping and safe environment are maintained.
- Classroom environment is kept pleasant.
- Healthy atmosphere includes proper ventilation, sunlight and air.
- Doors and windows are kept open to allow fresh air from outside to enter inside the room and vice versa. Enough open space is kept around the Institute building for free movement of air.
- Sufficient separate toilets are provided for female students.
- Adequate wash rooms are provided and their cleanliness is ensured. Sanitary napkin vending machine is facilitated in the campus.
- Clean and purified drinking water is made available for students and staff.
- Administrative office has data of important telephone numbers needed in any sort of calamity. Important telephone call numbers are displayed visible easily.
- Air conditioners are installed at appropriate places such as staff rooms, Computer labs, and administrative offices.
- Institute building is designed considering all aspects of safety.
- Fire fighting extinguishers are kept at appropriate places.
- Sanitization

These factors can differ substantially depending on the services provided.

7.1.5 Monitoring and measuring Resources

GOVERNMENT COLLEGE, SUNDARGARH determines and provides the resources needed to ensure valid and reliable results when monitoring or measuring is used to verify the conformity of products and services to requirements.

GOVERNMENT COLLEGE, SUNDARGARH ensures that the resources provided:

- Are suitable for the specific type of monitoring and measurement activities being undertaken; and
- Are maintained to ensure their continuing fitness for their purpose.

Millennium retains appropriate documented information as evidence of fitness for purpose of the monitoring and measurement resources.





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7.1.6 Organizational Knowledge

We determine the knowledge necessary for the operation of our processes and to achieve conformity of services provided by us.

To achieve the organization's objectives, we prefer use and sharing of organizational knowledge gained by experience.

Organizational knowledge is based on internal as well as external sources as mentioned below.

Internal sources

- Knowledge gained from experience
- Lessons learned from failures and success stories capturing and sharing undocumented knowledge and experience
- The results of improvements in processes

External sources

- Course curriculum
- Reference books
- Online data bases
- Conferences/ Seminars/ Workshops
- Gathering knowledge from stakeholders/students and external providers.

7. 2 Competence

As a Govt. college, GCS follows competence criteria of Govt to the extent necessary. All the staffs including teaching and non-teaching staffs

7.3 Awareness

Institute ensures that persons doing work under the Government College, Sundargarh's control are aware of:

- The quality policy;
- Relevant quality objectives;
- Their contribution to the effectiveness of the quality management system, including the benefits of improved performance; and
- The implication of not conforming with the quality management system requirements.

College arranges regular awareness for the teaching and non-teaching staffs.





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7. 4 Communication

GOVERNMENT COLLEGE, SUNDARGARH determined the internal and external communications relevant to the quality management system.

- The principal ensures effective internal communication regarding quality policy, quality objectives and the relevant activities of QMS.
- Internal communication is established thro' notices, verbal communication, display boards, SMS, website and daily records.
- Meetings conducted on department levels as well as management reviews on organizational level are effective communication means.
- Appraisal of staff and faculty helps individual employee and ultimately to the Institute to performance.
- The principal encourages suggestions for improvement from employee and students.
- Responsibility of external communication relevant to administration and legal matter is assigned to the Office in-charge and HODs are responsible for their own academic faculties. Written external communication is through channel of Principal.

Records:

- Internal and External Communication (emails)
- Official What's app group for students, teachers & non teachers

7. 5 Documented Information

GOVERNMENT COLLEGE, SUNDARGARH quality management system includes:

- Documented information required by ISO 9001:2015; and
- Documented information determined by GOVERNMENT COLLEGE, SUNDARGARH as being necessary for the effectiveness of the quality management system.

When creating an updating documented information, GOVERNMENT COLLEGE, SUNDARGARH ensures appropriate:

- Identification and description (e.g., title, date, author, or reference number);
- Format (e.g., language, software version, graphics) and media (e.g., paper, electronic); and
- Review and approval for suitability and adequacy.

Documented information required by the quality management system and by ISO 9001:2015 are controlled to ensure:

- Availability and suitable for use, where and when it is needed; and
- It is adequately protected (e.g., from loss of confidentiality, improper use, or loss of integrity).



For the control of documented information, GOVERNMENT COLLEGE, SUNDARGARH

• Distribution, access, retrieval and use;

has addressed the following activities, as applicable.

- Storage and preservation, including preservation of legibility;
- Control of changes (e.g., version control); and
- Retention and disposition.

Documented information of external origin determined by GOVERNMENT COLLEGE, SUNDARGARH to be necessary for the planning and operation of the quality management system is identified as appropriate and controlled.

Documented information retained as evidence of conformity are protected from unintended alterations.

8. OPERATION

8. 1 Operational Planning and Control

- We plan, implement and control the processes needed (described in section 4.4) to meet the requirements for the provision of services.
- Weimplementtheactions by determining the requirements for these rvices and establish criteria for:
 - 1) The processes
 - 2) the acceptance of services
- Wehavedocumentednecessaryprocesses which outlines required criteria to standardize method.
- Weplanactionstoaddressrisksandopportunitiesforcriticalprocesswhicharevitalfor performanceoftheQualityManagementSystem.Qualityobjectivesaredecidedforeach process for continual improvement in performance of processes.
- We control risks and opportunities as well as results of quality objectives.
- We determine the resources needed to achieve conformity to the service requirements while planning any new academic project and as and when resources are required in existing processes.
- We conduct internal audit regularly to monitor, measure and control effective implementation of the Quality Management System.
- We have determined, maintained and retained documented information to have confidence that the processes have been carried out as planned and to demonstrate the conformity of services to their requirements.

Any changes in the process affecting service are recorded and communicated in order to maintain the conformity of the service and provide information for corrective action or performance improvement of organization. Relevant person initiates changes. Principal is the authorityinordertomaintaincontrol. Weshallensurethatoutsourcedprocesses are controlled.





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8.2 **Requirements for Products and Services**

Communication with Customers includes:

- Providing information relating to services;
- Handling inquiries, contracts or orders, including changes;
- Obtaining students feedback relating to teaching and other services, including students' complaints;
- Handling or controlling student's property as necessary
- Establishing specific requirements for contingency actions, when relevant.

When determining the requirements for the training to be offered to students, GOVERNMENT COLLEGE, SUNDARGARH ensures that:

- The requirements for the trainings are defined, including:
- Any applicable statutory and regulatory requirements;
 - Those considered necessary by GOVERNMENT COLLEGE, SUNDARGARH;
 - GOVERNMENT COLLEGE, SUNDARGARH can meet the claims for the training it offers.

GOVERNMENT COLLEGE, SUNDARGARH ensures that it has the ability to meet the requirements for training offered to students. GOVERNMENT COLLEGE, SUNDARGARH conducts a review before committing to the training to students, to include:

- Requirements specified by students, including the requirements for delivery and postdelivery activities;
- Requirements not stated by the students, but necessary for the specified intended use, when known:
- Requirements specified by Institute;
- Statutory and regulatory requirements applicable to the training;

8.3 **Design and Development of Products and Services**

Courses are mainly offered by Affiliation Bodies and other concerned authorities. However, if any requirement of new courses is observed, necessary guidelines are followed. Detail of the courses are available in website. Hence Design and development is not applicable for GOVERNMENT COLLEGE, SUNDARGARH.

Control of Externally Provided Processes, Products, and Services

Institute ensures that externally provided processes, products, and services conform to requirements.

Institute determines the control applied to externally provided processes, products, and services when:



- Products and services from external providers are intended for incorporation into Government College, Sundargarh's own services;
- Products and services are provided directly to the student(s) by external providers on behalf of Government College, Sundargarh; and
- A process, or part of a process, is provided by an external provider as a result of a decision by Government College, Sundargarh.

Institute determines and applies criteria for the evaluation, selection, monitoring of performance, and re-evaluation of external providers, based on their ability to provide processes or products and services in accordance with requirements. Institute retains documented information of these activities and any necessary actions arising from the evaluations.

Government College, Sundargarh ensures that externally provided processes, products and services do not adversely affect Government College, Sundargarh ability to consistently deliver conforming services to its students.

GOVERNMENT COLLEGE, SUNDARGARH:

- Ensures that externally provided processes remain within the control of its quality management system;
- ➤ Defines both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output;
- > Takes into consideration:
 - The potential impact of the externally provided processes, products and services on GOVERNMENT COLLEGE, SUNDARGARH's ability to consistently meet customer and applicable statutory and regulatory requirements;
 - The effectiveness of the controls applied by the external provider;
- ➤ Determines the verification, or other activities, necessary to ensure that the externally provided processes, products and services meet requirements.

GOVERNMENT COLLEGE, SUNDARGARH ensures the adequacy of requirements prior to their communication to the external provider. GOVERNMENT COLLEGE, SUNDARGARH communicates to external providers its requirements for:

- ➤ The processes, products and services to be provided;
- > The approval of:
 - Products and services;
 - Methods, processes and equipment;
 - The release of products and services;
- > Competence, including any required qualification of persons;
- ➤ The external providers' interactions with GOVERNMENT COLLEGE, SUNDARGARH;
- ➤ Control and monitoring of the external providers' performance to be applied by GOVERNMENT COLLEGE, SUNDARGARH; and





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Verification or validation activities that GOVERNMENT COLLEGE, SUNDARGARH, or its students, intends to perform at the external providers' premises.

GOVERNMENT COLLEGE, SUNDARGARH has Lock and Key facilities to preserve exam papers, certificates or other important documents. Student information are filled and stored in internal server.

8. 5 Production and Service Provision

GOVERNMENT COLLEGE, SUNDARGARH implements its education service under controlled conditions. Controlled conditions include, as applicable:

- The availability of documented information that defines:
 - The type of training to be provided, or the activities to be performed;
 - The results to be achieved;
- The availability and use of suitable monitoring and measuring resources;
- ➤ The implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for products and services have been met;
- The use of suitable infrastructure and environment for the operation of processes;
- > The appointment of competent persons, including any required qualification;
- ➤ The validation and periodic revalidation, of the ability to achieve planned results of the processes for training, where the resulting output cannot be verified by subsequent monitoring or measurement;
- > The implementation of actions to prevent human error; and
- > The implementation of release, delivery and post-delivery activities.

Institute uses suitable means to identify outputs when it is necessary to ensure the conformity of training.

Institute identifies the status of outputs with respect to monitoring and measurement requirements throughout the educational services provided.

Institute controls the unique identification of the outputs when traceability is a requirement and retains the documented information necessary to enable traceability.

GOVERNMENT COLLEGE, SUNDARGARH exercises care with property belonging to students or external providers while it is under Government College, Sundargarh's control or being used by the institute.

Institute identifies, verifies, protects and safeguards student's or external providers' property provided for use or incorporation into the products and services.





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When the property of a student or external provider is lost, damaged or otherwise found to be unsuitable for use, Institute reports this to the student or external provider and retains documented information on what has occurred.

Institute preserves the outputs during education service provision, to the extent necessary to ensure conformity to requirements.

GOVERNMENT COLLEGE, SUNDARGARH meets requirements for post-delivery activities associated with the education services.

In determining the extent of post-delivery activities that are required, GOVERNMENT COLLEGE, SUNDARGARH considers:

- Statutory and regulatory requirements;
- > The potential undesired consequences associated with its services;
- The nature, use and intended lifetime of its services;
- > Student requirements; and
- Student Feedback.

GOVERNMENT COLLEGE, SUNDARGARH reviews and controls changes for production or service provision, to the extent necessary to ensure continuing conformity with requirements.

GOVERNMENT COLLEGE, SUNDARGARH retains documented information describing the results of the review of changes, the person(s) authorizing the change, and any necessary actions arising from the review.

Based on the Affiliation Body's guideline GOVERNMENT COLLEGE, SUNDARGARH prepare it's routine and plan academic sessions. Teachers are trained to conduct both offline and online classes.

8. 6 Release of Products and Service

GOVERNMENT COLLEGE, SUNDARGARH has implemented planned arrangements, at appropriate stages, to verify that the service requirements have been met.

The release of services to the student, do not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, as applicable, by the customer.

GOVERNMENT COLLEGE, SUNDARGARH retains documented information on the release of services. The documented information includes:

- > Evidence of conformity with the acceptance criteria;
- Traceability to the person(s) authorizing the release.



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8. 7 Control of Nonconforming Outputs

GOVERNMENT COLLEGE, SUNDARGARH ensures that outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery.

GOVERNMENT COLLEGE, SUNDARGARH takes appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. This also applies to nonconforming services detected during or after the provision of services.

GOVERNMENT COLLEGE, SUNDARGARH deals with nonconforming outputs in one or more of the following ways:

- > Correction;
- > Segregation, containment, return or suspension of provision of services;
- > Informing the students and guardians; and
- ➤ Obtaining authorization for acceptance.

Conformity to the requirements is verified when nonconforming outputs are corrected.

GOVERNMENT COLLEGE, SUNDARGARH retains documented information that:

- > Describes the nonconformity;
- > Describes the actions taken:
- > Describes any concessions obtained; and
- ➤ Identifies the authority deciding the action in respect of the nonconformity.

Remedial classes are arranged to groom the students. Backlog students are also invited to the special classes. Record of the special classes are maintained.





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9. PERFORMANCE EVALUATION

9. 1 Monitoring, Measurement, Analysis and Evaluation

GOVERNMENT COLLEGE, SUNDARGARH determines:

- ➤ What needs to be monitored and measured;
- ➤ The methods for monitoring, measurement, analysis and evaluation needed to ensure valid results;
- ➤ When the monitoring and measuring is performed;
- ➤ When the results from monitoring and measurement are analysed and evaluated. GOVERNMENT COLLEGE, SUNDARGARH evaluates the performance and the effectiveness of the quality management system. GOVERNMENT COLLEGE, SUNDARGARH retains appropriate documented information as evidence of the results.

GOVERNMENT COLLEGE, SUNDARGARH monitors students' perceptions of the degree to which their needs and expectation have been fulfilled. GOVERNMENT COLLEGE, SUNDARGARH determines the methods for obtaining, monitoring and reviewing this information.

GOVERNMENT COLLEGE, SUNDARGARH analyses and evaluates appropriate data and information arising from monitoring and measurement.

9. 2 Internal Audit

GOVERNMENT COLLEGE, SUNDARGARH conducts internal audits once in a year through internal and external members as per NAAC guideline. Internal academic and administrative audits are done to confirm-

- Millennium's own requirements for its quality management system;
- > The requirements of ISO 9001:2015
- > Is effectively implemented and maintained.

GOVERNMENT COLLEGE, SUNDARGARH has:

- ➤ Planned, established, implemented and maintains an audit program including the frequency, methods, responsibilities, planning requirements and reporting, which is taken into consideration the importance of the processes concerned, changes affecting GOVERNMENT COLLEGE, SUNDARGARH, and the results of previous audits;
- > Defined the audit criteria and scope of each audit;
- > Selected auditors and conducts audits to ensure objectively and the impartiality of the audit process;
- Ensured that the results of the audits are reported to relevant management;
- Take appropriate correction and corrective actions without undue delay; and



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➤ Retain documented information as evidence of the implementation of the audit program and the audit results.

Internal Audits done as per the procedure

9.3 Management Review

Top management reviews GOVERNMENT COLLEGE, SUNDARGARH quality management system, once in a year, to ensure its continuing suitability, adequacy, effectiveness, and alignment with the strategic direction of GOVERNMENT COLLEGE, SUNDARGARH.

Management review is planned and carried out taking into consideration:

- The status of actions from previous management reviews;
- ➤ Changes in external and internal issues that are relevant to the quality management system;
- ➤ Information on the performance and effectiveness of the quality management system, including trends in:
 - Customer satisfaction and feedback from relevant interested parties;
 - The extent to which quality objectives have been met;
 - Process performance and conformity of products and services;
 - Nonconformities and corrective actions;
 - Monitoring and measurement results;
 - Audit results;
 - The performance of external providers;
- ➤ The adequacy of resources;
- The effectiveness of actions taken to address risks and opportunities; and
- > Opportunities for improvement

The outputs of the management review include decisions and actions related to:

- > Opportunities for improvement;
- Any need for changes to the quality management system; and
- Resource needs.

GOVERNMENT COLLEGE, SUNDARGARH retains documented information as evidence of the results of management reviews.





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10.IMPROVEMENT

10.1 General

GOVERNMENT COLLEGE, SUNDARGARH determines and selects opportunities for improvement and implements any necessary actions to meet customer requirements and enhance students' satisfaction.

These include:

- ➤ Improving services to meet requirements as well as to address future needs and expectations;
- > Correcting, preventing or reducing undesired effects; and
- > Improving the performance and effectiveness of the quality management system.

10. 2 Nonconformity and Corrective Action

When non-conformity occurs, including any arising from complaints, GOVERNMENT COLLEGE, SUNDARGARH:

- Reacts to the nonconformity and, as applicable:
 - Takes action to control and correct it;
 - Deals with the consequences;
- ➤ Evaluates the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by:
 - Reviewing and analysing the nonconformity;
 - Determining the causes of the nonconformity;
 - Determining if similar nonconformities exist, or could potentially occur;
- > Implements any action needed:
- > Reviews the effectiveness of any corrective action taken;
- > Updates risks and opportunities determined during planning, if necessary; and
- ➤ Makes changes to the quality management system, if necessary. Corrective actions are appropriate to the effects of the nonconformities encountered.

GOVERNMENT COLLEGE, SUNDARGARH retains documented information as evidence of:

- The nature of the nonconformities and any subsequent actions taken; and
- > The results of any corrective action.





10. 3 Continual Improvement

The following aspects are considered for continual improvement:

- Quality objectives
- Non-conformance of processes
- Feedback
- Quality audit results
- Compliance of statutory and regulatory requirements
- Actions to address risks and opportunities
- External and internal issues





ENVIRONMENTAL MANUAL

GOVERNMENT COLLEGE, SUNDARGARH ISO 14001:2015

Environmental Management System





Rev. no.- 00; Effective Date: 27/05/2023

	Revision History		
Date	Rev Number	Description	
27/05/2023	00	Initial Issue	

Prepared by-	Approved by-
Name: Alok Kumar Naik	Name: Dr. Lalit Ranjan Sahu
Designation: IQAC Co-ordinator	Designation: PRINCIPAL
Government College, Sundargarh	Government College, Sundargarh



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PREFACE

The Environmental Manual of Government College, Sundargarh, documents the structure and design of the College's Environmental Management System (EMS), the interconnectedness of the processes that constitute the system, and the operational arrangements which support the quality assurance activities and academic standards at the College.

This document articulates college's commitment to quality and continuous improvement. It gives an outline of the key processes with references to policies and procedures relevant to EMS, and provides a holistic and integrative view of the quality management of the university's activities. The activities and practices that are described apply to the entire university communities.





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INSTITUTE PROFILE

Government College, Sundargarh is government a non-autonomous institution affiliated to Sambalpur University. It is a premier academic institution and one of the oldest in western Odisha. The college is located in the tribal dominated district of Sundargarh. The history of this institution dates back to 1958 when it was founded by the visionary Collector and District Magistrate A.L Nair. The institution saw the light of day on 7th February, 1958. It was a humble beginning as a science college with 64 students in the ISC class. The institution was initially housed in a hired building at Nari Kalyan Kendra known as Biramitra Club. Subsequently, it was moved to its present location near the Bank of river IB about two kilometres away from the heart of the town. The college was taken over by the Government of Odisha in 1962 which led to its rapid growth and development in the subsequent period.

With the passage of time, Government College, Sundargarh has grown into an important centre of learning that caters to the needs of all categories of students of Sundargarh district as well as other parts of the State.

The college offers UG and PG courses in Science, Arts and Commerce streams in 14 subjects such as Physics, Chemistry, Mathematics, Botany, Zoology, Geology, History, Economics, Political Science, Education, English, Odia, Sanskrit and Commerce. A self-financing course in teacher education has been functioning since 2017-18. Besides, the institution also offers facilities in distance education through an IGNOU study centre and an unit of the Odisha State Open University.

Government College Sundargarh has been accredited with B⁺ grade by NAAC in its second cycle of accreditation in 2016. Recently, the college has been granted permission by the Department of Higher Education to open courses in Sociology, Anthropology, Geography and Computer Science which will further boost its academic credentials.

Government College, Sundargarh is spread over an area of 154 acres with an impressive green cover as a result of the consistent plantation drives launched by the College Administration over a period of time.

The institution is well equipped with adequate infrastructure such as classrooms, 01 computer lab, 03 galleries, 02 conference halls, 05 hostels for students (03 for boys and 02 for girls). 01 language lab, smart classrooms, virtual classrooms, science laboratories, gymnasium, canteen and staff quarters. Besides, the college also has NCC, NSS and YRC units for extension activities. A well-functioning mentoring system is in place for proper guidance of the students by their mentors. Parent-Teacher meetings are held by different departments to identify problem areas in the academic ecosystem and undertake remedial measures as and when required.



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The college has emerged as a preferred destination for the bright end meritorious students of not only the district of Sundargarh but also beyond its borders.

PDCA at GOVERNMENT COLLEGE, SUNDARGARH (refer 4.4)

GOVERNMENT COLLEGE, SUNDARGARH adopts a process approach in implementing and improving the effectiveness of a Environmental Management System to enhance customer satisfaction. Understanding and managinginterrelated process as a system, contributes to the institution effectiveness and efficiency inachieving its intended results. This approach enables the institution to control theinterrelationships and interdependencies among the processes of the system, so that the overallperformance of the institution can be enhanced. Management of the processes and the system can be achieved using the PDCA cycle with an overall focus on risk-based thinkingaimed at taking advantage of opportunities to prevent undesirable results.

The PDCA cycle denotes:

- Plan: establish the objectives of the system and its processes, and the resources needed to deliver results in accordance with customers 'requirements and the Institution'spolicies.
- Do: Implement what was planned.
- Check: Monitor and measure processes and the resulting products and services against policies, objectives and requirements and report the results.
- Act: Take actions to improve performance, as necessary.

Schematic representation of process and its interactions

The process flow chart given below is a representation of the process followed in the institution and the interaction of its elements and its controls. The various entities shown in the diagraminclude:

- Admission Process
- Teaching Learning Process
- Evaluation Process
- Student Support
- Placement & Progression
- Physical Facilities
- Extension activities and best practices
- Internal Quality Assurance Cell (IQAC)





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1. SCOPE

We shall apply requirements of ISO 14001:2015 for demonstrating our ability to consistentlyprovide service that meets Student and applicable statutory and regulatory requirements.

We aim to enhance Student satisfaction through the effective application of the system, including processes for continual improvement of the system and assurance of conformity to Student and applicable statutory and regulatory requirements.

All requirements of international standard ISO 14001:2015 are applicable to our organization.



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2. NORMATIVE REFERENCE

Government College, Sundargarhaligns its EMS with ISO 14001:2015, an internationally recognized standard for environmental management systems.



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3. TERMS AND DEFINITIONS

Terms and definitions are according to ISO 14001:2015 standard



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4. CONTEXT OF THE ORGANIZATION

Understanding the Organization and its Context 4. 1

GOVERNMENT COLLEGE, SUNDARGARH has established, implemented, documented, and maintained an Environmental management system to ensure that the services provided by the institution conforms to customer requirements and to ensure that appropriate control is exercised on the activities having an impact on quality. Opportunities forcontinually improving the institutional performance in terms of the quality parameters as per therequirements of the ISO 14001:2015 international standards are also identified in the following external domains.

- Legal
- Technological
- Competitive Market
- Cultural
- Social
- Economic
- Environment

GOVERNMENT COLLEGE, SUNDARGARH also emphasises on:

- Values
- Culture
- Knowledge
- Performance

External and Internal issues are listed in **Annex-1**. We monitor and reviews information about these external and internal issues.

4. 2 **Understanding the Needs and Expectations of Interested Parties**

Key stakeholders include students, faculty, staff, regulatory authorities, local community, and other partners. We engage with these parties to understand their expectations and incorporate their feedback into our environmental management practices.

Needs and Expectation of interested parties are defined in $\mathbf{Annex} - \mathbf{2}$.

4.3 Determining the Scope of the Environmental Management **System**

The EMS atGovernment College, Sundargarh encompasses all activities, facilities, and processes within the institute. This includes classroom operations, laboratories, maintenance, transportation, waste management, energy consumption, and water usage.





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Scope of Registration:

The Scope associated with Government College, Sundargarh activities and registration is:

"Providing Educational Services leading to Under Graduate, Post Graduate and B.Ed. Degrees"

4. 4 Environmental management system and its Processes

Institute has established, implemented, maintains, and continually improves an Environmental management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard.

Detail of the courses are available in Annex - 3.





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5. LEADERSHIP

5. 1 Leadership and Commitment

The principal exhibits leadership and commitment with respect to the Environmental management system by:

- a) Taking accountability for the effectiveness of the Environmental management system;
- b) Ensuring that the quality policy and quality objectives established for the Environmental management system and are compatible with the context and strategic direction of Government College, Sundargarh;
- c) Ensuring the integration of the Environmental management system requirements into Government College, Sundargarh's educational process;
- d) Promoting the use of the process approach and risk-based thinking;
- e) Ensuring that the resources needed for the Environmental management system are available:
- f) Communicating the importance of effective quality management and of conforming to the Environmental management system requirements;
- g) Ensuring that the Environmental management system achieves its intended results;
- h) Engaging, directing and supporting persons to contribute to the effectiveness of the Environmental management system;
- i) Promoting improvement; and
- j) Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

5. 2 Environmental Policy

The environmental policy reflects our commitment to environmental protection, sustainability, and compliance with applicable laws and regulations. It is regularly reviewed and communicated to all stakeholders.

5. 3 Organizational Roles, Responsibilities, and Authorities

Roles, responsibilities, and authorities for environmental management are clearly defined within the institute. All employees are responsible for following environmental procedures and contributing to the achievement of environmental objectives.

Organization structure is available in Annex -4.

Top management assigns the responsibility and authority for:

- Ensuring that the Environmental management system conforms to the requirements of this International Standard;
- Ensuring that the processes are delivering their intended outputs;
- Reporting on the performance of the Environmental management system and on opportunities for improvement, in particular to top management;
- Ensuring the promotion of student focus throughout the college; and





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• Ensuring that the integrity of the Environmental management system is maintained when changes to the Environmental management system are planned and implemented.

Roles and Responsibilities are available in **Annex-5**



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6. PLANNING

Purpose:

Establish, maintain, and implement procedure to adopt 'Risk Based Thinking' to determine the

risks and opportunities of the processes needed for the Environmental management system, theirapplication throughout the organization and the appropriate actions to address them.

Scope:

The procedure is applicable for challenges and opportunities of the processes needed for the Environmental management system of the Institution.

Responsibility:

EMS Team.

6.1 Actions to Address Risks and Opportunities

When planning for the Environmental management system, Government College, Sundargarhconsidered the issues and determined the risks and opportunities that need to be addressed to:

- Give assurance that the Environmental management system can achieve its intended results;
- Enhance desirable effects;
- Prevent, or reduce, undesired effects; and
- Achieve improvement.

Government College, Sundargarhidentifies and evaluates environmental aspects associated with its activities, products, and services. These aspects include energy consumption, waste generation, water usage, greenhouse gas emissions, and biodiversity impacts.

Refer SOP for Risk & Opportunities SDWC/SOP/RO/01

6. 2 Environmental Objectives and Planning to Achieve Them

The institute maintains an up-to-date register of applicable environmental laws, regulations, permits, and other requirements. Compliance with these requirements is monitored and reviewed regularly.

Environmental objectives and targets are established to address significant aspects and align with the environmental policy. These objectives are SMART (Specific, Measurable, Achievable, Relevant, Time-bound) and are reviewed periodically. Programs are implemented to achieve these objectives and targets.

EMS team plan to achieve relevant quality objectives

- Action to be taken
- Resources requirement





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- Responsibility to whom
- Time frame to achieve quality objective
- How to evaluate results of quality objectives?

Based on the same, objective and realization plan is available in Annex-6

6.3 Planning of Changes

When Government College, Sundargarhdetermines the need for changes to the Environmental management system, the changes are carried out in a planned manner

Government College, Sundargarhconsiders:

- The purpose of the changes and their potential consequences;
- The integrity of the Environmental management system;
- The availability of resources; and
- The allocation or reallocation of responsibilities and authorities.





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7. SUPPORT

7. 1 Resources

Institutedetermines and provides the resources needed for the establishment, implementation, maintenance and continual improvement of the Environmental management system.

7. 2 Competence

As a Govt. college, GCS follows competence criteria of Govt to the extent necessary. All the staffs including teaching and non-teaching staffs.ensures that personnel have the necessary competence and training to perform their environmental responsibilities. Awareness programs are conducted to enhance understanding of environmental issues and foster a culture of sustainability.

7. 3 Awareness

Instituteensures that persons doing work under the Government College, Sundargarh's control are aware of:

- The Environmental policy;
- Relevant Environmental objectives;
- Their contribution to the effectiveness of the Environmental management system, including the benefits of improved performance; and
- The implication of not conforming with the Environmental management system requirements.

College arranges regular awareness for the teaching and non-teaching staffs.

7.4 Communication

Effective communication channels are established to ensure the dissemination of environmental information to employees, students, suppliers, and the wider community. These channels include newsletters, notice boards, intranet portals, and stakeholder engagement activities.



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7. 5 Documented Information

Documented information related to the EMS, including policies, procedures, manuals, forms, and records, is maintained, controlled, and accessible to relevant personnel.

Procedures are in place to control the creation, review, approval, and distribution of documented information, ensuring that it remains current, accurate, and readily available.

8. OPERATION

8. 1 Operational Planning and Control

The Institute establishes procedures to ensure that operational activities are carried out in accordance with the EMS requirements. These procedures cover aspects such as waste management, energy efficiency, water conservation, procurement of environmentally friendly products, and maintenance of equipment.

8. 2 Emergency Preparedness and Response

The institute develops and maintains an emergency response plan to effectively handle environmental emergencies, including spills, leaks, natural disasters, and other incidents. The plan outlines roles, responsibilities, communication channels, and response procedures to mitigate the impact of emergencies on the environment.





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9. PERFORMANCE EVALUATION

9. 1 Monitoring, Measurement, Analysis and Evaluation

The Institute establishes a systematic process for monitoring and measuring key environmental performance indicators. Data is collected, analysed, and evaluated to assess the effectiveness of the EMS and identify opportunities for improvement.

Regular evaluations are conducted to ensure compliance with applicable environmental laws, regulations, and permits. Compliance audits are carried out, findings are documented, and necessary corrective actions are implemented.

9. 2 Internal Audit

Government College, Sundargarh conducts internal audits once in a year through internal and external members as per NAAC guideline.

Internal audits are conducted to assess the conformity and effectiveness of the EMS. Trained auditors review procedures, records, and practices to identify areas for improvement and ensure compliance with ISO 14001:2015 requirements.

Internal Audits done as per the procedure

9. 3 Management Review

Top management conducts periodic reviews of the EMS to ensure its continued suitability, adequacy, and effectiveness. These reviews assess the achievement of objectives, the implementation of programs, the results of audits, and the overall performance of the EMS. Decisions and actions are documented for continual improvement.





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10.IMPROVEMENT

10.1 General

Government College, Sundargarh determines and selects opportunities for improvement and implements any necessary actions to meet customer requirements and enhance students' satisfaction.

These include:

- ➤ Improving services to meet requirements as well as to address future needs and expectations;
- > Correcting, preventing, or reducing undesired effects; and
- ➤ Improving the performance and effectiveness of the Environmental management system.

10. 2 Nonconformity and Corrective Action

The Institute establishes procedures to identify and address nonconformities and environmental incidents. When nonconformities are identified, corrective actions are initiated to prevent recurrence and minimize the environmental impact. Root cause analysis and preventive actions are also implemented to address potential issues.

10. 3 Continual Improvement

The institute is committed to continual improvement in environmental performance. Opportunities for improvement are identified through monitoring, audits, management review, and feedback from stakeholders. These opportunities are documented, prioritized, and incorporated into the EMS to drive ongoing sustainability initiatives.



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ENERGY MANAGEMENT SYSTEM MANUAL

GOVERNMENT COLLEGE, SUNDARGARH

ISO 50001:2018 Energy Management System



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1 Purpose

This document sets out the system to manage energy at the Government College, Sundargarh in line with the International Standard for Energy Management Systems ISO50001:2018.

This document is applicable to employees, students, visitors and contractors at the College's Government College, Sundargarh

2 Common Acronyms

ACRONYM	MEANING
ACI	Air Conditioning Inspection
BEE	Board for Energy and Environment
СНР	Combined Heat and Power System
СоР	Code of Practice
CO _{2e}	Carbon Dioxide equivalence
CRC	Carbon Reduction Commitment
DEC	Display Energy Certificate
DH	District Heating System
E&E/EET	Energy & Environment Team
EMS	Environmental Management System
EnB	Energy Baseline
EnMS	Energy Management System
EnPI	Energy Performance Indicator
EPC	Energy Performance Certificate
PSDS	Public Sector Decarbonisation Scheme
PSU	Professional Service Units
SATM	School of Aerospace, Transport and Manufacturing
SECR	Streamlined Energy and Carbon Reporting
SHE/SHEE	Safety, Health, Environment & Energy
SOM	School of Management
SWEE	School of Water, Energy and Environment
ToR	TermsofReference



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3 Common Terms and their Definitions

TERM	DEFINITION
AMR – Automatic Meter Reporting	Automatic Half Hourly, or Daily, collection of meter data.
Boundaries	Physical or site limits and/or organisational limits as defined by Government College, Sundargarh
Continual Improvement	A recurring process which results in the enhancement of energy performance and the Energy Management System
Correction	An action to eliminate a detected Non-conformity
CorrectiveAction	An action to eliminate the <i>cause</i> of a detected Non-conformity
DH – District Heating System	The University's District Heating system on the Technical Site of the main campus including over 6 km of pipe work.
Energy	Electricity, Fuels, Steam, Heat, Compressed Air and other similarmedia
Energy Baseline	Quantitative references providing a basis for the comparison of Energy Performance
Energy Consumption	Quantity of energy applied
Energy Efficiency	Ratio or other quantitative relationship between an <i>output</i> of performance, service, goods or energy and an <i>input</i> of energy
Energy Management System EnMS	Set of interrelated or interacting elements to establish an Energy Policy and Energy Objectives , and processes and procedures to achieve those objectives
Energy Management Team	Person(s) responsible for the effective implementation of the Energy Management System activities and for delivering energy performance improvements
Energy Objective	A specified outcome or achievement set to meet Cranfield University's Energy Policy related to improved Energy Performance
Energy Performance	Measurable results related to Energy Efficiency, Energy Use And Energy Consumption
Energy Performance Indicator EnPI	A quantitative value or measure of Energy Performance , as defined by Cranfield University
Energy Policy	A statement by Cranfield University of its overall intentions and direction of the University related to its Energy Performance , as formally expressed by Top Management
Energy Review	A determination of Cranfield University's Energy Performance based on data and other information, leading to identification of opportunities for improvement



TERM	DEFINITION
Energy Services	Activities and their results related to the provision and/or use of energy
Energy Target	A detailed and quantifiable energy performance requirement, applicable to Cranfield University, that arises from the Energy Objective and that needs to be set and met to achieve thisobjective
Energy Use	Mannerorkindof applicationofenergy
Interested Party	A person or group concerned with, or affected by, the Energy Performance of Cranfield University
Internal Audit	A systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements are fulfilled
Non-conformity	Non-fulfil ment of a requirement
Preventive Action	Action to eliminate the <i>cause</i> of a potential Non-conformity
Procedure	A specifiedwaytocarryoutanactivityoraprocess
Record	A document stating results achieved or providing evidence of activities performed
Salix	Salix Finance Ltd. provides interest-free Government funding to the public sector to improve their energy efficiency, reduce carbon emissions and lower energy bills. Salix is funded by the Department for Business, Energy and Industrial Strategy, the Department for Education, the Welsh Government and the Scottish Government and was established in 2004 as an independent, publicly funded company, dedicated to providing the public sector with loans for energy efficiency projects.
Scope	The extent of activities, facilities and decisions that Cranfield University addresses through its EnMS , which can include several Boundaries
SHECommittees	Quarterly Safety, Health, Environment and Energy Committee Meetings for each School to review performance in each of these sectors.
Significant Energy Use	Energy use accounting for substantial energy consumption and/or offering considerable potential for energy performance improvement
Top Management	The person or group of people who direct and control Cranfield University at the highest level



ISO 50001 Energy Management System Requirements

4 Context of the Organization

4.1 Understanding the Organization and its Context

Government College, Sundargarh is government a non-autonomous institution affiliated to Sambalpur University. It is a premier academic institution and one of the oldest in western Odisha. The college is located in the tribal dominated district of Sundargarh. The history of this institution dates back to 1958 when it was founded by the visionary Collector and District Magistrate A.L Nair. The institution saw the light of day on 7th February, 1958. It was a humble beginning as a science college with 64 students in the ISC class. The institution was initially housed in a hired building at Nari Kalyan Kendra known as Biramitra Club. Subsequently, it was moved to its present location near the Bank of river IB about two kilometres away from the heart of the town. The college was taken over by the Government of Odisha in 1962 which led to its rapid growth and development in the subsequent period.

With the passage of time, Government College, Sundargarh has grown into an important centre of learning that caters to the needs of all categories of students of Sundargarh district as well as other parts of the State.

The college offers UG and PG courses in Science, Arts and Commerce streams in 14 subjects such as Physics, Chemistry, Mathematics, Botany, Zoology, Geology, History, Economics, Political Science, Education, English, Odia, Sanskrit and Commerce. A self-financing course in teacher education has been functioning since 2017-18. Besides, the institution also offers facilities in distance education through an IGNOU study centre and an unit of the Odisha State Open University.

Government College Sundargarh has been accredited with B⁺ grade by NAAC in its second cycle of accreditation in 2016. Recently, the college has been granted permission by the Department of Higher Education to open courses in Sociology, Anthropology, Geography and Computer Science which will further boost its academic credentials.

Government College, Sundargarh is spread over an area of 154 acres with an impressive green cover as a result of the consistent plantation drives launched by the College Administration over a period of time.

The institution is well equipped with adequate infrastructure such as classrooms, 01 computer lab, 03 galleries, 02 conference halls, 05 hostels for students (03 for boys and 02 for girls). 01 language lab, smart classrooms, virtual classrooms, science laboratories, gymnasium, canteen

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and staff quarters. Besides, the college also has NCC, NSS and YRC units for extension activities. A well-functioning mentoring system is in place for proper guidance of the students by their mentors. Parent-Teacher meetings are held by different departments to identify problem areas in the academic ecosystem and undertake remedial measures as and when required.

The college has emerged as a preferred destination for the bright end meritorious students of not only the district of Sundargarh but also beyond its borders.

4.2 Understanding the Needs and Expectations of Interested Parties

The College has determined

- a) The interested parties that are relevant to energy performance and the EnMS;
- b) The relevant requirements of these interested parties;

Interested parties and their expectations are available in Annexure-2

4.2.1 Identification of Relevant Legislation:

New legislation pertinent to the College will be ascertained by the college from different sources like internet, published news etc.

The Compliance Obligations Register includes all Energy Legislation and other requirements applicable to the college. It is maintained and updated as required, and at least annually by the college.

4.2.2 Responsibilities:

The Energy Team will amend as necessary any relevant College documentation and provide information regarding changes to energy regulations and other requirements to the relevant people.

It is the responsibility of various departments to ensure that the requirements of relevant legislation and other requirements are implemented by appropriate staff.

Progress of implementation of new or revised legislation will be included in Management Reviews of the EnMS.

4.2.3 Ensuring Compliance

Compliance with legislation and other requirements is ensured via several processes operating across the University as well as via a formal review. These include:

- An annual review of compliance against all applicable legislation and other requirements included within the Compliance Obligations Register Database.
- Internal auditors taking account of applicable legislation and other requirements when



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undertaking internal audits.

- Planned preventive maintenance of equipment to ensure continued normal operation.
- Training of employees to ensure work is undertaken in line with appropriate procedures and codes of practice.

It is the responsibility of all staff and students to notify the Energy Team of any energy waste through the appropriate reporting mechanisms.

It is the responsibility of the Energy Team to bring to the attention of relevant staff (as appropriate) any instances of legislation being breached and vice versa.

Determining the Scope of the Energy Management System

The scope of the EnMS includes all the activities, operations and services associated with employees, students and visitors at the College campus. The college has approximately 3,200 students and 140 staffs.

4.4 Energy Management System

This manual describes the College's EnMS.



5 Leadership

5.1 Leadership and Commitment

The Energy committee of the College reports to the Executive on energy issues, including:

Top management has demonstrated leadership and commitment with respect to continual improvement of its energy performance and the effectiveness of the EnMS, by:

- a) Ensuring that the EnMS scope and boundaries are established;
- b) Ensuring that the energy policy, objectives and energy targets are established and are compatible with the strategic direction of the college;
- c) Ensuring the integration of the EnMS requirements into the organization's business processes;
- d) Ensuring that action plans are approved and implemented;
- e) Ensuring that the resources needed for the EnMS are available;
- f) Communicating the importance of effective energy management and of conforming to the EnMS requirements;
- g) Ensuring that the EnMS achieves its intended outcome(s);
- h) Promoting continual improvement of energy performance and the EnMS;
- i) Ensuring the formation of an energy management team;
- j) Directing and supporting persons to contribute to the effectiveness of the EnMS and to energy performance improvement;
- k) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility;
- 1) ensuring that the EnPI(s) appropriately represent(s) energy performance;
- m) Ensuring that processes are established and implemented to identify and address changes affecting the EnMS and energy performance within the scope and boundary of the EnMS.

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5.2 Energy Policy

The Energy Policy is reviewed and updated annually. The Energy Policy is a written statement of the approach of the College regarding the management of energy and its compliance with the requirements of ISO 50001. The College's Energy Policy Statement is made available to all

members of staff and students. It may be viewed on college notice boards and college website

The Energy Policy Statement documents the College's commitment to continual improvement in energy performance.

5.3 Organizational Roles, Responsibilities and Authorities

Top management has ensured that the responsibilities and authorities for relevant roles are assigned and communicated within the organization.

Top management has assigned the responsibility and authority to the energy management team for:

- a) Ensuring that the EnMS is established, implemented, maintained and continually improved;
- b) Ensuring that the EnMS conforms to the requirements of this document;
- c) Implementing action plans to continually improve energy performance;
- d) Reporting on the performance of the EnMS and improvement of energy performance to top management at determined intervals;
- e) Establishing criteria and methods needed to ensure that the operation and control of the EnMS are effective.

Roles and Responsibility available in Annexure - 3



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6 Energy Planning

6.1 Actions to Address Risks and Opportunities

This EnMS Manual defines the energy planning process which is designed to lead to continually improved energy performance, taking account of the external and internal issues detailed in Section 4.1, and the expectations of interested parties detailed in Section 4.2.

The organization has identified the risk and managed the risk as per the risk management procedure.

6.2 Objectives, Energy Targets and planning to achieve them

The College has established objectives at relevant functions and levels.

The objectives and energy targets are:

- a) Be consistent with the energy policy;
- b) Be measurable (if practicable);
- c) Take into account applicable requirements.
- d) Consider SEUs
- e) Take into account opportunities to improve energy performance;
- f) Be monitored;
- g) Be communicated;
- h) Be updated as appropriate.

Objectives and plans are available in Annexure-4

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6.3 Energy Review

The organization has developed and conducts energy review to

- a) Analyze energy use and consumption based on measurement and other data, i.e.:
- 1) Identify current types of energy
- 2) Evaluate past and current energy use(s) and consumption;
- b) Based on the analysis, identify SEUs;
- c) For each SEU:
- 1) Determine relevant variables;
- 2) determine current energy performance;
- 3) identify the person(s) doing work under its control that influence or affect the SEUs;
- d) Determine and prioritize opportunities for improving energy performance;
- e) Estimate future energy use(s) and energy consumption.

The energy review is updated at defined intervals, as well as in response to major changes in facilities, equipment, systems or energy-using processes.

The College maintains documented information the methods and criteria used to develop the energy review as per Annexure -5.

6.4 Energy Performance Indicators

The College has determined EnPIs that:

- a) Are appropriate for measuring and monitoring its energy performance;
- b) Enable the organization to demonstrate energy performance improvement.

The method for determining and updating the EnPI(s) is available in Annexure-6

6.5 Energy Baseline

The college has established EnB using the information from the energy review(s) taking into account a suitable period of time.

Where the college has data indicating that relevant variables significantly affect energy performance, the college carries out normalization of the EnPI value(s) and corresponding EnB(s).

6.6 Planning for Collections of Energy Data

The college has ensured that key characteristics of its operations affecting energy performance are identified, measured, monitored, and analyzed at planned intervals. The college defines and

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implements an energy data collection plan appropriate to its size, its complexity, its resources and its measurement and monitoring equipment. The plan specifies the data necessary to monitor the key characteristics and state how and at what frequency the data shall be collected and retained.



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7 Support

7.1 Resources

The college has determined and provided the resources needed for the establishment, implementation, maintenance, and continual improvement of energy performance and the EnMS.

7.2 Competence

The college has:

- a) Determined the necessary competence of person(s) doing work under its control that affects its energy performance and EnMS;
- b) Ensured that these persons are competent on the basis of appropriate education, training, skills or experience;
- c) Where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken;
- d) Retained appropriate documented information as evidence of competence.

7.3 Awareness

Persons doing work under the college's control are aware of:

- a) The energy policy
- b) Their contribution to the effectiveness of the EnMS, including achievement of objectives and energy targets, and the benefits of improved energy performance
- c) The impact of their activities or behaviors with respect to energy performance

7.4 Communication

The college has determined the internal and external communications relevant to the EnMS, including:

- a) On what it will communicate;
- b) When to communicate;
- c) With whom to communicate;
- d) How to communicate;
- e) Who communicates?

When establishing its communication process (es), the college ensure that information communicated is consistent with information generated within the EnMS and is dependable.



Communication process is established

7.5 Documented Information

The college has established documented information process in QMS. Same is followed for ISO 50001.



8. Operation

8.1 Operational Planning and Control

The college has planned, implemented, and control the processes, related to its SEUs, needed to meet requirements and to implement the actions determined in 6.2, by:

- a) Establishing criteria for the processes, including the effective operation and maintenance of facilities, equipment, systems and energy-using processes, where their absence can lead to a significant deviation from intended energy performance;
- b) Communicating the criteria to relevant person(s) doing work under the control of the organization;
- c) Implementing control of the processes in accordance with the criteria, including operating and maintaining facilities, equipment, systems and energy-using processes in accordance with established criteria;
- d) Keeping documented information to the extent necessary to have confidence that the processes have been carried out as planned. The college shall control planned changes and review the consequences of unintended changes, taking actions to mitigate any adverse effects, as necessary. The college shall ensure that outsourced SEUs or processes related to its SEUs are controlled.

8.2 Design

The college has considered energy performance improvement opportunities and operational control in the design of new, modified, and renovated facilities, equipment, systems and energy-using processes that can have a significant impact on its energy performance over the planned or expected operating lifetime.

Where applicable, the results of the energy performance consideration has been incorporated into specification, design and procurement activities.



8.3 Procurement

The college has established and implemented criteria for evaluating energy performance over the planned or expected operating lifetime, when procuring energy using products, equipment and services which are expected to have a significant impact on the college's energy performance. When procuring energy using products, equipment and services that have, or can have, an impact on SEUs, the organization shall inform suppliers that energy performance is one of the evaluation criteria for procurement. Where applicable, the college has defined and communicated specifications for:

- a) Ensuring the energy performance of procured equipment and services;
- b) The purchase of energy.



9. Performance Evaluation

9.1 Monitoring, Measurement, Analysis and Evaluation of Energy Performance and the EnMS

9.1.1 General

The organization has determined for energy performance and the EnMS:

- a) What needs to be monitored and measured, including at a minimum the following key characteristics:
 - 1) The effectiveness of the action plans in achieving objectives and energy targets;
 - 2) EnPI(s);
 - 3) Operation of SEUs
 - 4) Actual versus expected energy consumption;
- b) The methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results:
- c) When the monitoring and measurement shall be performed;
- d) When the results from monitoring and measurement shall be analyzed and evaluated.
 The organization shall evaluate its energy performance and the effectiveness of the EnMS

the corresponding EnB(s)

The college will investigate and respond to significant deviations in energy performance.

Improvement in energy performance shall be evaluated by comparing EnPI value(s) against

The organization shall retain documented information on the results of the investigation and response.

9.1.2 Evaluation of Compliance with Legal Requirements and Other Requirements

At planned intervals, the college evaluates compliance with legal and other requirements related to its energy efficiency, energy use, energy consumption and the EnMS.

9.2 Internal Audit

The college conducts internal audit as per IA procedure.

9.3 Management Review

The college conduct MRM at regular interval considering the agendas of ISO 50001 requirement.

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10. Improvement

10.1 Non conformity and Corrective Action

The College follows ISO 9001 process for NC Management.

10.2 Non conformity and Corrective Action

The College follows ISO 9001 process for continual improvement.

