



ATMIYA UNIVERSITY

Manual
for
Environmental Audit and Consultancy Cell



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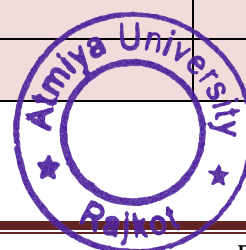

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Abbreviations

MoEF	:	Ministry of Environment and Forest
GPCB	:	Gujarat Pollution Control Board
GoG	:	Government of Gujarat
AU	:	Atmiya University
EACC	:	Environmental Audit & Consultancy Cell
NABL	:	National Accreditation Board for Testing and Calibration Laboratories
NABET	:	National Accreditation Board for Education and Training
HEIs	:	Higher Education Institutes
PhD	:	Doctorate of Philosophy
PM	:	Particulate Matter
PM₁₀	:	Particle having the aerodynamic diameter 10 or less than 10 micron
PM_{2.5}	:	Particle having the aerodynamic diameter 2.5 or less than 2.5 micron
E- Waste	:	Electronic waste
SO₂	:	Sulphur dioxide
NO₂	:	Nitrogen Oxide
HCl	:	Hydrogen Chloride
Cl₂	:	Chlorine Gas
NH₃	:	Ammonia
Br₂	:	Bromine
pH	:	Potential of Hydrogen



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About Inspiration and Promoters

H.D.H. Bhramswaroop Hariprasad Swamiji Maharaj is the inspiration and the Founder President of the parent trust **Yogi Divine Society**. Swamiji's vision of spirituality is articulated in His message of "**ATMIYATA**" – **Spiritual Harmony**. This message has swept across the global landscape through centres based within and outside India, all effectively spreading the altruistic societal services and spiritual objectives of Yogi Divine Society.

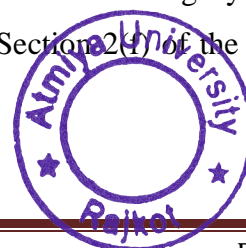
Yogi Divine Society, with the motto “**Service unto Humanity is Service unto God!**”, is involved since last four decades in various activities related to social welfare, youth empowerment, education, medical services, relief services during time of natural calamities, tribal community empowerment, environmental care and in many other. The trust runs a school in the cities of Ahmedabad, Vadodara and Bharuch in State of Gujarat which caters education from nursery to standard 12. The trust has also adopted a grant-in-aid school Shri Vijay Vidya Mandir in Avidha, a tribal area in Bharuch district taking care of all educational needs of the students.

Sarvoday Kelavani Samaj, a trust inspired by Yogi Divine Society, is based in Rajkot and primarily focusing on youth empowerment through education. Working with the motto “**Build Temples in Youth through Education!**” the trust runs various institutions catering education from nursery to Ph.D. Along with Atmiya University, this includes four private schools and one grant-in-aid school, and a grant-in-aid autonomous college. Under the divine blessing of **P.P. Premswaroop Swamiji Maharaj**, President of the Sarvoday Kelavani Samaj, and mentorship of **P.P. Tyagvallabh Swamiji**, Founder President of Atmiya University, all institutions are making great efforts to spread essence of *Atmiyata* through education.

About University

The **Sarvoday Kelavani Samaj**, Rajkot (Gujarat) established in 1967, became an ancillary of **Yogi Divine Society-Baroda** in 1988, is the sponsoring body of **Atmiya University**, established on **April 13, 2018, under the Gujarat Private University Act, 2009** is located in the educationally disadvantage region of Saurashtra, Rajkot with an academic legacy of 57 years of erstwhile institutions. The University is recognised under Section 2(f) of the UGC Act, 1956 and has received approval from UGC, AICTE and PCI.

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The campus spread across 23.5 acres of sprawling lush green land with the State-of-art infrastructure, adequate support facilities, excellent landscaping. The University emphasizes to train inquisitive minds in consonance with the doctrines of higher education, SDG's and Universal Humane Values focusing leading to the holistic development of the stakeholders through its curriculum where human values are placed in the fulcrum with CBCS, OBE system and semester pattern.

All Certificate, Diploma, Undergraduate, Postgraduate, and Doctoral programs incorporate cross-cutting themes of professional ethics, gender equality, human values, environmental sustainability, and social responsibility. These programs are designed to address local, regional, national, and global challenges, emphasizing employability, entrepreneurship, and skill development.

The University has 6 faculties structure for Engineering & Technology, Science, Business & Commerce, Health Sciences, Humanities & Social Sciences and a distinct faculty named the Faculty of Transformative Education encompassing 3 schools viz. Indian Knowledge System, Sustainability and Consciousness Development & Value Education. The University has provision of adequate TL&E facilities-Classrooms having Digital-AV aid, Special Laboratories equipped with high end instruments including CIF lab, Robotics lab, Environmental Audit Lab etc, State-of-the-Art Controller-of-Examination Office and Computer Laboratories equipped with high end servers and UPS-green power generators. It has a provision of good student support facilities like, Differently abled Infrastructure, Language-laboratories, Training-placement cell, EVAC Charging station, Hostels, Canteen-mess, Indoor-outdoor sports, NCC-NSS, Day-care Centre, Gymnasium, Yoga centre, Health & Wellness centre-doctor on call, Ramps-elevator, Student stores-ATM, Parking, 499.5 KW Solar Roof top, Green power generator-RO plants, Paper & Plastic recycling unit, and Medicinal plant-botanical garden. The campus also has more than **500+ Neem trees**, a *Gaushala*, an Herbal garden, skill centres like *Sarjan (Wealth from Waste)*, *Parivartan (Paper Recycling Unit)* and *Samarth (Formulation of Household Chemicals)* promoting sustainability practices, solar panel installations and rain water harvesting system and many other facilities. Outstanding achievements at State & National level events & academic programs every year and students have also excelled in the field of Sports, Cultural, NSS and NCC.

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The University is committed to providing a secure and safe environment, utilizing advanced security solutions like Sophos firewall and comprehensive fire safety equipment.

The 6 storey centrally AC automated OPAC library features fully web-based functional modules utilizing Java Web Start™ Technology. It complies with international metadata and interoperability standards such as MARC-21, MARC-XML, z39.50, SRU/W, and OAI-PMH. The library includes 24x7 reading room, 45,802 print titles, 119,334 volumes, over 100,000 books, 300,000+ e-books, and access to more than 6,000 e-journals.

The University has established cutting-edge facilities including the Tinkering Lab, Fab Lab, and Incubation Centre to nurture entrepreneurial endeavours under SSIP. The University has Recognised as Environmental Auditor Schedule-1 (2010-onward) by GPCB, Centre of Excellence in Embedded Systems and Robotics in collaboration with IIT-Bombay's e-Yantra initiatives, 3+ Star ranking by Institution's Innovation Council (IIC), by the Ministry of Education. E-YUVA program in partnership with BIRAC.

The University has many MoU's/Linkages/Collaboration of National & International level leading to several awards, accolades & recognitions. The University's decentralized and participatory structure empowered by various centres/cells/departments that contribute to a vibrant and collaborative academic, research & innovation ecosystem.

The motto of the University is सुहृदं सर्वभूतानाम् (**Suhradam Sarva-Bhutanam**) which means well-wisher of all living beings. The campus where Atmiya University is located is known as **Yogidham Gurukul**.



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1. Environmental Audit and Consultancy Cell

1.1 Introduction

The **Environmental Audit and Consultancy Cell** of **Atmiya University** was established in 2010 at the former institution, Atmiya Institute of Technology & Science, with a dedicated team of experts to offer comprehensive solutions to environmental challenges faced by industries, organizations, and communities. In 2022, the cell received recognition under its new name, "Department of Civil Engineering, Faculty of Engineering & Technology, Atmiya University, Rajkot," from the Gujarat Pollution Control Board, Gandhinagar.

Our cell offers a wide range of services including environmental audits, impact assessments, sustainability consulting, and tailored solutions to address the unique needs of our clients. We believe in promoting environmentally responsible practices that not only benefit businesses but also contribute positively to the planet.

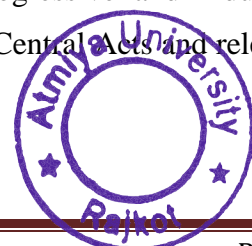
Backed by state of the art laboratory infrastructure and expertise from diverse fields such as environmental science, engineering, and policy, our team is committed to delivering high-quality consultancy services that align with international standards and best practices.

Whether you are a business looking to enhance your environmental performance, a government agency seeking guidance on policy implementation or a community organization striving for sustainable development, our Environmental Audit and Consultancy Cell is here to support you every step of the way.

1.2 Gujarat Pollution Control Board (GPCB)

The Government of Gujarat constituted the GPCB (Gujarat Pollution Control Board) on 15.10.1974 as per provisions under the Water (Prevention and Control of Pollution) Act, 1974, the with a view to protect the environment, prevent and control the pollution of water in the State of Gujarat, that occupies a prominent niche in progressive and industrial development of the country. The Board has been entrusted with the Central Acts and relevant Rules for pollution control as notified thereof from time to time.

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1.3 Environmental Audit

It is a management tool comprising of a systematic, documented, periodic, and objective evaluation of how well the environment management systems are performing with the aim of:

- Waste prevention and reduction,
- Assessing compliance with regulatory requirements,
- Facilitating control of environment practices by a company management
- Placing environmental information in the public domain.

1.4 Environment audit scheme of GPCB:

The hon'ble high court of Gujarat introduced the environmental audit scheme in its order Dt. 20/12/96 in (misc. Civil application no. 1863 of 1995 with misc. Civil application no. 1967 of 1995 with misc. Civil application no. 93 of 1995 and in its order dt. 13/3/97) special civil application no. 770 of 1995. Subsequently the scheme is modified with some important changes vide office order no. Gpcb/eas-c-28/301928 dated: 23-01-2015. This modified scheme is effective from 1st April, 2015.

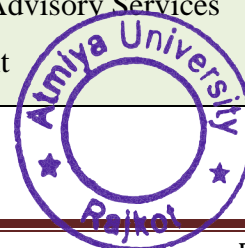
1.5 Objective of Environmental Audit:

- Enforcing discipline amongst the industries.
- Arming GPCB as well as the Associations of industries in the concerned areas with the necessary information.
- Doing regular monitoring of different industries scattered in the entire State of Gujarat with a perspective of environmental protection & sustainable development.

1.6 Services Offered

Environmental Monitoring	Consultancy Services
<ul style="list-style-type: none">• Source Emission Monitoring• Ambient Air Quality Monitoring• Water and Wastewater Monitoring• Hazardous Waste Monitoring• Noise Monitoring	<ul style="list-style-type: none">• Environmental Audit• Green Audit of HEIs• Adequacy Certificate• Statutory Compliance• Technical Advisory Services• Green Audit

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2. Industry Sector Served as per GPCB Environment Audit Scheme

- Petroleum and Petrochemicals
- Fertilizers
- Fermentation
- Oil Refinery
- Pulp and Paper
- Dyes and Dyes Intermediates
- Pharmaceuticals
- Pesticides
- Hazardous Waste Management Facility
- Common Biomedical Waste Management Facility
- Common Effluent Treatment Plants
- E-waste Recycling Facility
- Chlor-Alkali
- Food Processing
- Thermal Power Plant
- Cement Plant
- Integrated Iron and Steel Plant
- Copper Smelter
- Zinc Smelter
- Aluminium Smelter
- Tanneries
- Tyre and Tubes Manufacturing plants
- And many more as per the guideline of GPCB



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3. Environmental Audit & Consultancy Cell at Atmiya University

3.1 Environmental Audit Team



Er. Ravi S. Tank (I/c Director, Environmental Audit & Consultancy Cell)
(BE- Chemical Engineering)

- Member:-Chemical Engineer
- Designation- Head, Department of Industrial Chemistry
- Experience- 24 years



Dr. Hemantkumar G. Sonkusare
(Ph.D- Civil Engineering)

- Member:- Environmental Engineer
- Designation- Head, Department of Civil Engineering
- Enperience- 15 Years



Dr. Anil S. Patel
(Ph.D- Chemistry)

- Member:- Chemist
- Designation- Associate Professor, Department of CHemical Science
- Experience- 12 Years



Dr. Vivek B. Pattani
(Ph.D- Microbiology)

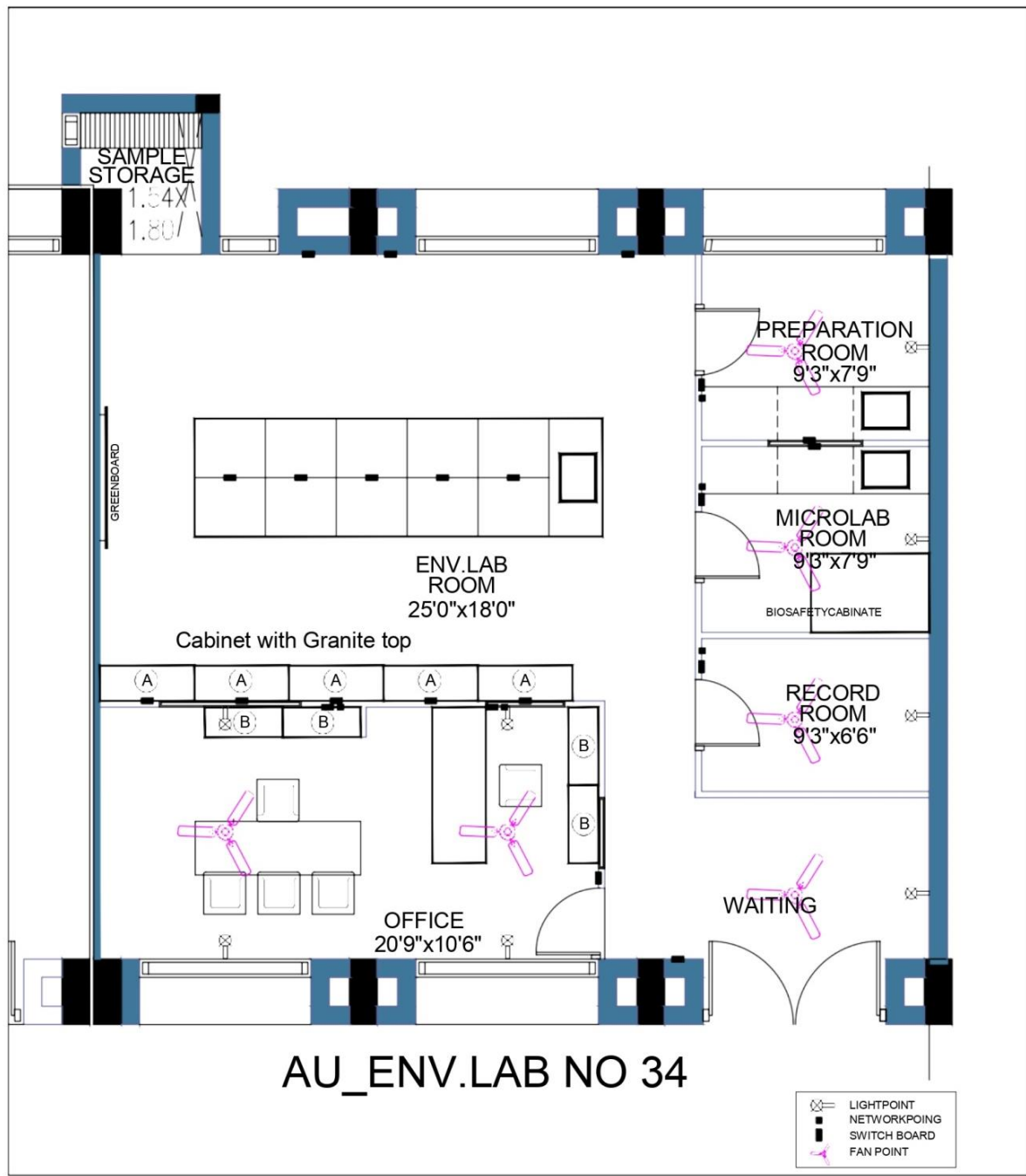
- Member:- Microbiologist
- Designation- Assistant Professor, Department of Microbiology
- Experience- 9 Years

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3.2 Plan Layout of Analytical Laboratory

Area: 180 m²

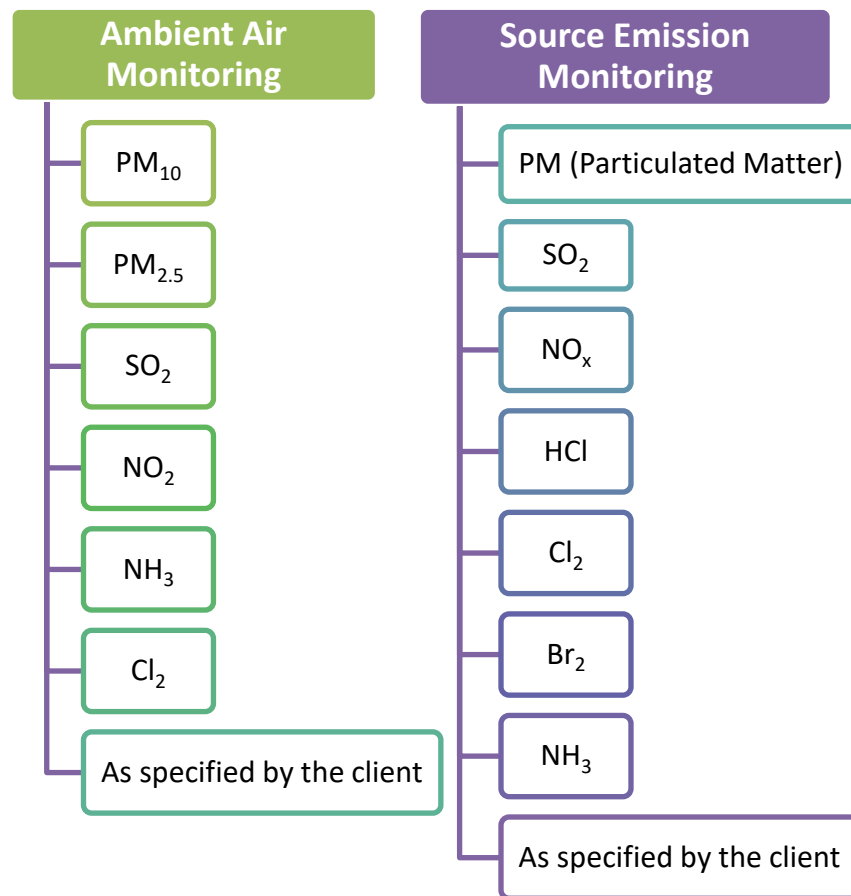


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4. Monitoring Scope

4.1 Air Monitoring

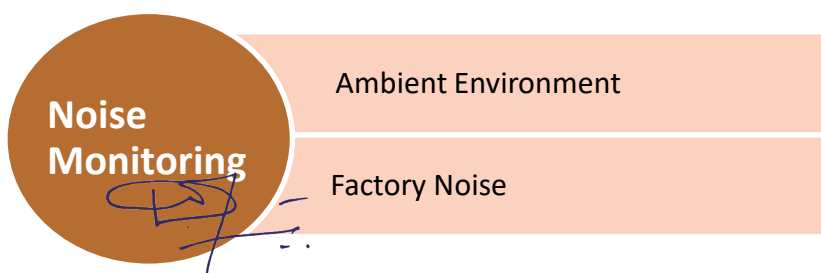


Note:

Ambient Air: Ambient air as the part of the atmosphere that's outside of buildings and accessible to the public.

Source Emission: A source emission is the release of pollutants or contaminants into the environment from a chemical process, building, furnace, plant, or other entity.

4.2 Noise Monitoring



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4.3 Hazardous Waste Monitoring



Monitoring Scope of Hazardous Waste

Hazardous Waste

Hazardous waste is waste that is dangerous or potentially harmful to our health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes.

Characteristics of hazardous waste

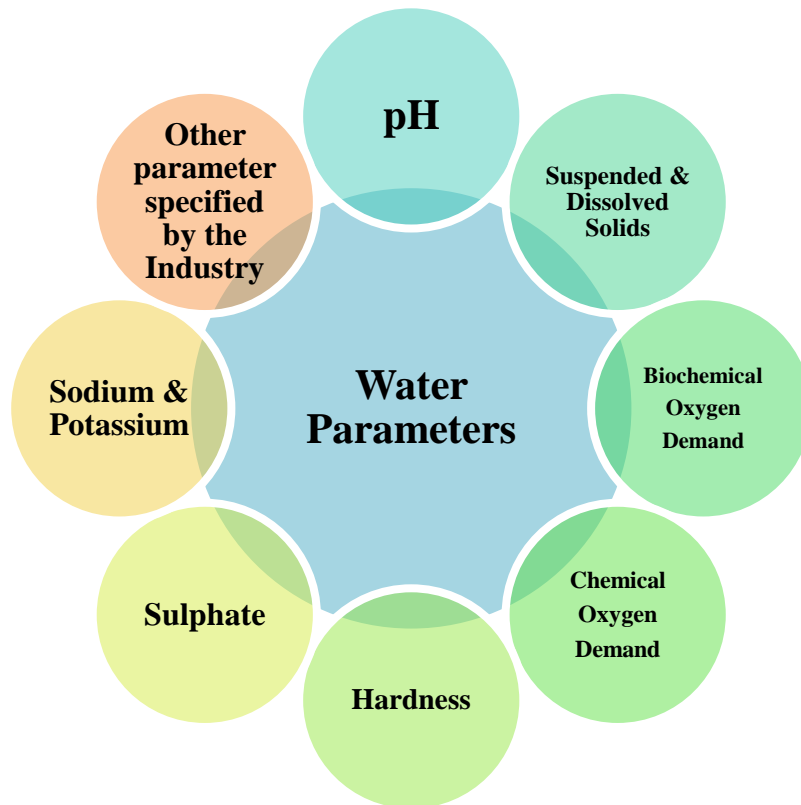
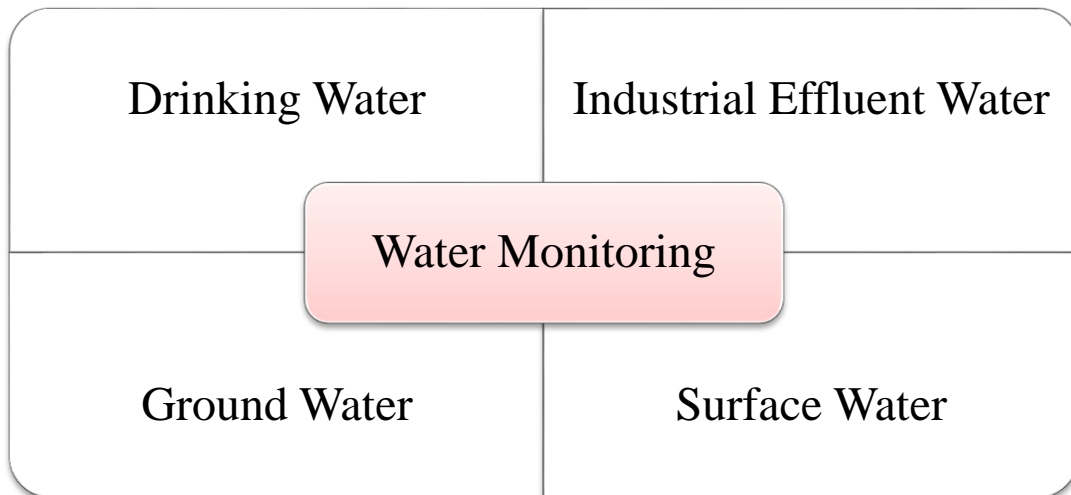
Ignitability: The material having flash point $< 60^{\circ}\text{C}$

Corrosivity: pH less than or equal to 2, or greater than or equal to 12.5

Reactivity: The materials which are unstable under “normal” conditions. They can cause explosions, toxic fumes, gases, or vapors when heated, compressed, or mixed with water.

Toxicity: Harmful or fatal when ingested or absorbed (e.g., containing mercury, lead, etc.)

4.4 Water Monitoring

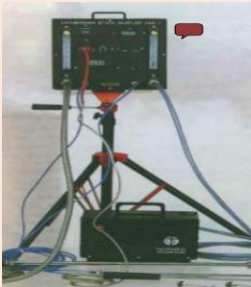





Parameter of testing during the water monitoring

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5. Laboratory Instruments


Air Pollution Monitoring Instruments			
SN	Instrument	Make & Model	Applications
1	 <p>Stack Monitoring Kit</p>	<p>Make: ENVIROTECH Model: VSS1</p>	<p>Source emission sampling of particulate matter (PM) and flue gases (SO₂, NO_x, etc) generated from the industrial process.</p> <p>Parameter: Particulate Matter, Sulfur Dioxide, Oxides of Nitrogen, etc.</p>
2	 <p>Flue Gas Analyzer</p>	<p>Make: KANE Model: KANE 975</p>	<p>Real-time monitoring of flue gas generated from the industrial processes.</p> <p>Parameter: Carbon Monoxide, Carbon Dioxide, Sulphur Dioxide, Oxides of Nitrogen</p>
3	 <p>Respirable Dust Sampler</p>	<p>Make: ENVIROTECH Model: APM460 NL</p>	<p>Sampling of Respirable dust (PM₁₀) of ambient air as per the design and process developed by the CSIR-NEERI complying the requirement of CPCB.</p> <p>Parameter: Respirable Dust (PM₁₀)</p>
4	 <p>Fine Particulate Sampler</p>	<p>Make: ENVIROTECH Model: APM550 MFC</p>	<p>Sampling of fine dust (PM_{2.5}) from ambient air as per the guideline.</p> <p>Parameter: Fine Dust (PM_{2.5})</p>


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5	 <p>Gaseous Pollutant Sampler</p>	<p>Make: ENVIROTECH Model: APM 433</p>	<p>Stand-alone equipment for monitoring inorganic gaseous pollutants with Thermo- Electric cooling system to keep the impingers cool, so as to increase the efficiency of absorption.</p> <p>Parameter: Sulfur Dioxide, Nitrogen Oxides, other gases.</p>
6	 <p>Combo Dust Sampler</p>	<p>Make: VAYUBODHAK Model: VBI-152</p>	<p>Combo Dust Sampler is capable of sampling PM₁₀, PM_{2.5} and gaseous pollutant simultaneously.</p> <p>Parameter: PM₁₀, PM_{2.5}, SO₂, NO₂, other gases</p>
7	 <p>Handy Sampler</p>	<p>Make: ENVIROTECH Model: APM821</p>	<p>Handy sampler is specially developed to sample gaseous pollutant from ambient air as well as stack for 8 hour.</p> <p>Parameter: SO₂, NO₂, Cl₂, HCl, other gases</p>






Laboratory Analysis Instruments




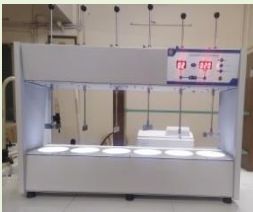

SN	Instrument	Make & Model	Applications
8	 <p>pH Meter</p>	<p>Make: HORIBA Model: PH1200</p>	<p>Horiba make state of the art pH meter capable of measuring the pH upto 3 decimal points.</p> <p>Parameter: pH</p>






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9	 <p>EC Meter</p>	<p>Make: HORIBA Model: EC1100</p>	<p>Horiba make state of the art EC meter capable of measuring the very high conductivity, dissolved solids, salinity in the water sample.</p> <p>Parameter: Electrical conductivity, Salinity, Total Dissolved Solids</p>
10	 <p>Turbidity Meter</p>	<p>Make: EQUIPTRONICS Model: EQ811</p>	<p>Turbidity meter can be used to measure the turbidity of water sample collected from the STP, ETP or natural water bodies.</p> <p>Parameter: Turbidity (NTU)</p>
11	 <p>COD Digester</p>	<p>Make: MERCK Model: TR320</p>	<p>COD (Chemical Oxygen Demand) Digester is specially made heating instrument to digest liquid chemical sample at 150 C.</p> <p>Application: Chemical Oxygen Demand (COD) test of water</p>
12	 <p>Hot Plate</p>	<p>Make: TARSONS Model: MC03</p>	<p>Hot plate is being used to perform chemical reactions, to heat samples, and for numerous other activities.</p> <p>Application: Total Dissolved Solids, Oil & Grease, Reagent Preparation, Distillation</p>
13	 <p>Waterbath</p>	<p>Make: EQUITRON Model: MC03</p>	<p>A water bath is laboratory equipment made from a container filled with heated water. It is used to incubate samples in water at a constant temperature over a long period of time. It is also used to enable certain chemical reactions to occur at high temperature.</p> <p>Application: Oil & Grease Test, Chemical Reaction at constant temperature</p>



14	 <p>BOD Incubator</p>	<p>Make: EQUITRON Model: #7142-150</p>	<p>BOD incubators are especially useful for determining levels of organic matter and nitrogen in waste water samples. These incubators are also called low temperature incubators. The BOD incubator provides the required temperature for the growth of microorganisms and allows to perform the BOD testing.</p> <p>Application: Biochemical Oxygen Demand (BOD) test of water</p>
15	 <p>Bacteriological Incubator</p>	<p>Make: EQUITRON Model: #7251-150</p>	<p>Bacteriological Incubator is used for storage of bacteria plate and bacterial culture growth at 37 degree Celsius. It can be used to perform fecal coliform test.</p> <p>Application: Microbial test of environmental sample</p>
16	 <p>Autoclave</p>	<p>Make: EQUITRON Model: #7421 SLEFA</p>	<p>Autoclaves operate at high temperature and pressure in order to kill microorganisms and spores. They are used to decontaminate certain biological waste and sterilize media, instruments and lab ware.</p> <p>Application: Microbial test of environmental sample.</p>
17	 <p>Microscope</p>	<p>Make: MATIC Model: 2000</p>	<p>Microscope is used to check the bacterial contamination of water sample.</p> <p>Application: Microbial test of environmental sample</p>
18	 <p>Centrifuge</p>	<p>Make: NEUATION Model: iFuge UC02R</p>	<p>Centrifuges are used in laboratory to separate fluids, gases, or liquids based on density. It can be used to separate suspended solids and microorganisms from water sample.</p> <p>Application: Separation of suspended and colloidal solids from water sample.</p>

19	 <p>UV-Vis Spectrophotometer</p>	<p>Make: JASCO Model: JASCO V-730</p>	<p>UV-VIS spectrophotometer is valuable tools in environmental laboratory for monitoring and analyzing various parameters of ambient air pollutant and water pollutants.</p> <p>Application: Analysis of ambient air pollutants (SO₂, NO₂, Cl₂, etc.) Analysis of water pollutants (Nitrate, Sulphate etc)</p>
20	 <p>Flame Photometer</p>	<p>Make: ESICO Model: 1385</p>	<p>Flame photometer is an instrument used in inorganic chemical analysis to determine the concentration of certain metal ions, among them sodium, potassium, lithium, and calcium in the soil, water or solid waste sample.</p> <p>Application: Analysis of Na, K, Li in water sample.</p>
21	 <p>Muffle Furnace</p>	<p>Make: META-LAB Model: MSI-50A</p>	<p>Muffle furnace is a crucial piece of laboratory equipment used for high-temperature heating, recovery and cooling of a material in an insulated cabinet. It is used to perform Ash content, Inorganic content test of a environmental sample.</p> <p>Application: Analysis of Ash Content, Inorganic Content in environmental sample.</p>
22	 <p>Jar Test Apparatus</p>	<p>Make: EI Model: 1926</p>	<p>Jar Test Apparatus used primarily in the water treatment and testing industry. Jar Test Apparatus allows efficient and economical flocculation, jar test flocculator are used for a uniform stirring of samples in a water testing laboratory.</p> <p>Application: To know optimum dose of coagulating agent for wastewater treatment plant.</p>
23	 <p>Kjeldahl Distillation Assembly</p>	<p>Make: LOGITECH Model: 2600.DNEU.06</p> <p>DAN</p>	<p>Kjeldahl apparatus is used to determine organic nitrogen and protein contents in chemical substance.</p> <p>Application: Ammonical Nitrogen Test</p>

24	 <p>5 digit analytical balance</p>	<p>Make: OHAUS Model: PXP125D</p>	<p>5 digit analytical balance is used to accurately measure the weight of any substance at 5 decimal point accuracy.</p> <p>Application: Weight of filter paper to analyse the concentration of air pollutants, weight of chemicals to make reagent.</p>
25	 <p>Colony Counter</p>	<p>Make: EQUITRON Model: #06717M</p>	<p>Colony counters are used to estimate a liquid culture's density of microorganisms by counting individual colonies on an agar plate, slide, mini gel, or Petri dish.</p> <p>Application: Fecal coliform test of water.</p>
26	 <p>Refrigerator</p>	<p>Make: LG Model: GL-1292RPZL.APZZEBN</p>	<p>Laboratory refrigerators are used to cool samples or specimens for preservation. It also used to store the critical reagents used for the analysis of sample.</p>
27	 <p>Biosafety Cabinet</p>	<p>Make: TEK BIO Model: CLASS II</p>	<p>Biological safety cabinet (BSC) is a primary engineering control used to protect personnel against bio-hazardous or infectious agents and to help maintain quality control of the material being worked with as it filters both the inflow and exhaust air.</p> <p>Application: Microbial test of air, water and soil sample.</p>

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28	 <p>Visible Spectrophotometer</p>	<p>Make: ANTECH Model: AN-V-600N</p>	<p>Visible spectrophotometer is valuable tools in environmental laboratory for monitoring and analyzing various parameters of ambient air pollutant and water pollutants.</p> <p>Application: Analysis of ambient air pollutants (SO₂, NO₂) Analysis of water pollutants (Sulphate, Phenolic compounds etc.)</p>
29	 <p>Sound Level Meter</p>	<p>Make: MECO Model: 970P</p>	<p>A sound level meter is used for acoustic measurements. It is commonly a hand-held instrument with a microphone.</p> <p>Application: Measurement of ambient and factory noise at industrial premises.</p>



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6. Prominent Client List

Year 2023-24

SN	Name of Industry
1	Balkrishna Industries Limited, Bhuj, Kutch
2	GHCL Limited, Sutrapada
3	IFFCO, Kalol
4	Nirma Limited, Bhavnagar
5	Saurashtra Cement Limited, Porbandar
6	Ultratech Cement Limited (Narmada Cement –Jafrabad Works), Jafrabad, Amreli
7	Ultratech Cement Limited (Sewagram Cement Works), Kutch

Year 2022-23

SN	Name of Industry
1	Bunge India Pvt. Ltd., Bhauchau, Kutch
2	Ecocare Infrastructure Pvt. Ltd., Surendranagar
3	GSECL, Sikka, Jamnagar
4	Nayara Energy Limited, Jamnagar
5	Nirma Limited, Bhavnagar
6	Orient Abrasives Limited, Porbandar
7	Saurashtra Cement Limited, Ranavav, Porbandar
8	Sumitomo Chemical India Ltd., Bhavnagar



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Year 2021-22

SN	Name of Industry
1	IFFCO Ltd., Kandla
2	Mono Steel (India) Ltd., gandhidham, Kutch
3	Navkaar Ispat Ltd., Gandhidham, Kutch
4	Welspun Steel Ltd. (Sponge of 12 MW Power Plant), Anjar, Kutch
5	Ultratech Cement Ltd. (Narmada Cement Jafrabad Works), Jafrabad, Amreli
6	Ultratech Cement Ltd. (Gujarat Cement Works), Kovaya, Amreli
7	Gujarat Maritime Board, (TSDF), Alang
8	Gajambuja Cements (Unit of Ambuja Cements Ltd.), Kodinar
9	Grasim Industries Ltd. (Unit-Indian Rayon), Veraval
10	Archean Chemical Industries Limited, Kutch
11	Ultratech Cement Ltd. (Sewagram Cement Works), Kutch
12	Distromed Bioclean Pvt. Ltd. (CBWTF), Rajkot
13	DCW Ltd. (Soda Ash Division), Dhrangdhra, Surendranagar
14	Sheel Oil & Fats Pvt. Ltd., Kutch



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Year 2020-21

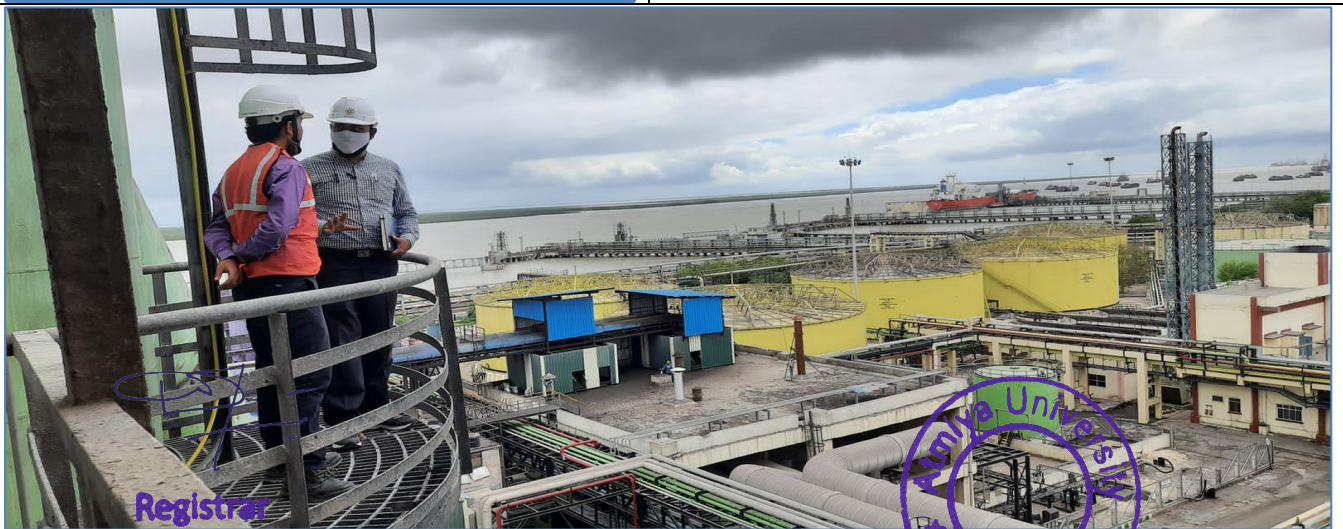
SN	Name of Industry
1	Bhadreshwar Vidhyut Pvt. Ltd., Kutch
2	Detox India Pvt. Ltd., Kutch
3	Gallant Metal Limited, Kutch
4	New Tech Forge and Foundry Limited, Kutch
5	Saurashtra Enviro Projects Pvt. Ltd., Kutch
6	BMWMC- Indian Medical Association, Bhavnagar
7	Tata Chemicals Ltd, Mithapur
8	Reliance Industries Limited, Jamnagar
9	Shri Digvijay Cement Co. Ltd., Sikka, Jamnagar
10	CETP of Jetpur Dyeing & Printing Association, Surat
11	Gujarat Siddhee Cement Ltd, Sutrapada
12	Ultratech Cement Limited (Unit: Sewagram Cement Works), Kutch
13	Distromed Bioclean Pvt. Ltd., Rajkot
14	Jay Khodiyar Env Techno Pvt. Ltd. (CETP), Rajkot



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7. Glimpse of Environmental Audit Field Visit



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8. Proactive Initiative of Environmental Audit and Consultancy Cell

8.1 Executive Training Workshop for Consultants and Industry Professionals



12 Day Executive training workshop On Environmental Audit and Monitoring Organized for Environment Audit Team of Smt. R. D. Gardi College, Rajkot

Outcome of Executive Training Program


- The trainee of the executive training program (Smt. R. D. Gardi College, Rajkot) got the recognition as a schedule-I Environmental Auditor from the GPCB.
- Long term mutually beneficial relation building between the environmental auditors community.

8.2 Industry-Academia Collaborations

Industrial Visit for the students of Atmiya University have been organised at various industry premises



1) Mono Steel India Limited, Kutch


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2) IFFCO Indian Farmers Fertilizer Cooperative Limited, Kalol Unit

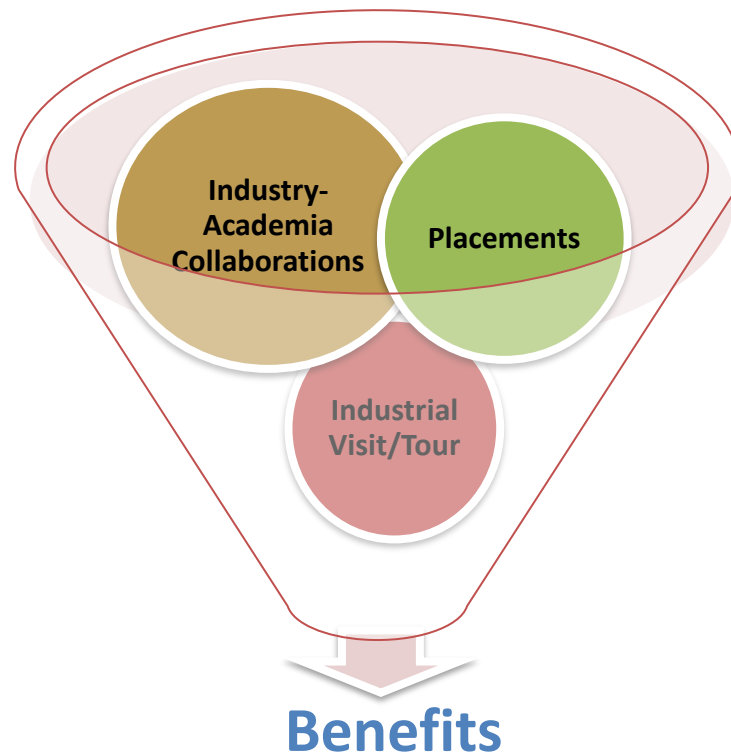


3) GMB-Alang landfill Site

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9. Benefits of Environmental Audit and Consultancy Cell



Benefits of Environmental Audit and Consultancy Cell at University

1. Academic and Research Excellence

- **Real-World Application:** Provides faculty and students opportunities to apply theoretical knowledge to practical environmental challenges.
- **Research Opportunities:** Offers a platform for conducting research on environmental auditing, sustainability, and industry practices, leading to publications and innovation.
- **Skill Development:** Enhances student skills in environmental analysis, reporting, and consulting, making them industry-ready.

2. Industry-Academia Collaboration

- **Strong Industry Links:** Builds relationships with local and regional industries, opening doors for internships, projects, and employment opportunities for students.
- **Feedback Loop:** Industry insights help update and tailor the university curriculum to meet market demands.
- **Brand Building:** Positions the university as a go-to hub for expertise in environmental compliance and sustainability.

3. Revenue Generation

- **Consultancy Fees:** Generates additional revenue through consultancy services provided to industries.
- **Funding Opportunities:** Attracts sponsorships, grants, or collaborations with government and non-government organizations for environmental projects.

4. Enhanced Reputation

- **Sustainability Leadership:** Positions Atmiya University as a leader in environmental stewardship and sustainable practices in academia.
- **Community Impact:** Strengthens the university's role in contributing to societal and environmental welfare.

5. Practical Exposure for Students

- **Hands-On Learning:** Students gain exposure to real-world environmental challenges, audits, and solutions.
- **Career Development:** Enhances employability through hands-on training in environmental regulations, auditing processes, and consultancy work.

6. Contribution to Sustainable Development

- **Promoting Green Practices:** Encourages industries to adopt sustainable practices through expert guidance.
- **Environmental Protection:** Helps in identifying and mitigating environmental risks in industrial operations.

7. Networking and Partnerships

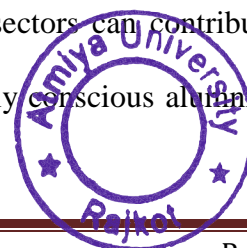
- **Wider Reach:** Establishes networks with other universities, governmental bodies, and environmental organizations.
- **Cross-Disciplinary Growth:** Encourages interdisciplinary collaboration within the university, such as with departments of engineering, management, or sciences.

8. Recognition and Accreditation

- **Institutional Accolades:** Boosts chances of gaining recognition and accreditation from national and international bodies for environmental contributions.
- **Rankings and Visibility:** Improves the university's ranking and visibility in environmental education and research.

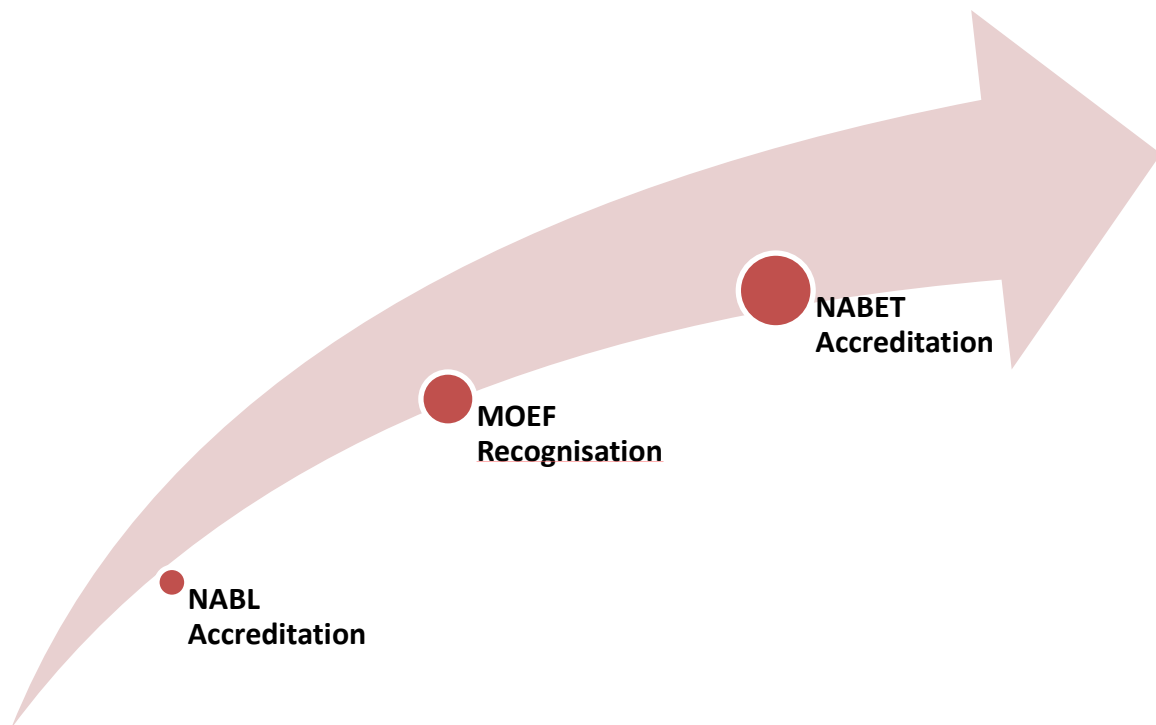
9. Alumni Engagement

- **Alumni Involvement:** Alumni working in environmental sectors can contribute as mentors or collaborators.
- **Community Building:** Creates a network of environmentally conscious alumni who can further the university's reputation.



10. Future Scope

Environmental Audit & Consultancy Cell at Atmiya University is committed to continuous improvement and achieving excellence. To fulfil this mission, we have established the following goals:



Future Scope of EA&CC

• Achieving NABL Accreditation

- Obtain National Accreditation Board for Testing and Calibration Laboratories (NABL) certification to ensure the credibility of environmental testing labs.

• Securing NABET Accreditation

- Work toward accreditation from the National Accreditation Board for Education and Training (NABET) for environmental impact assessments (EIA).
- Develop expertise in conducting comprehensive EIAs for academic, industrial, and societal projects.

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- **ISO Certifications**

- Work toward obtaining ISO14001 for environmental management systems, ISO 50001 for energy management systems and ISO 9001: 2015 for quality management and quality assurance.
- Implement a robust monitoring and review system to maintain compliance with international standards.

- **Environmental Engineering Consultancy**

- Design, develop, and optimize air, water, and soil pollution control systems, including: Effluent treatment plants (ETP) and sewage treatment plants (STP). Air pollution control devices like scrubbers, electrostatic precipitators, and filters.
- Monitor and assess pollution levels for industries to provide cost-effective and innovative mitigation strategies.



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