ENERGY MANAGEMENT ASSESSMENT (2024-2025)

D. Y. Patil Education Society,

(Deemed to be University),

Kolhapur, Maharashtra, India.

1. Introduction

DYPES INTRODUCTION:

D. Y. Patil Education Society, (Deemed to be University), Kolhapur.

Established Under: Section 3 of the UGC Act 1956

Established on: 1st September 2005

Discipline: Health and Allied Sciences

Motto: 'Dnyanadheenam Jagat Sarvam'

Guided by well-defined, clearly articulated Vision, Mission and Goals the University offers contemporary & innovative programs through its Medical Institute, Institute of Nursing, School of Hospitality, Institute of Physiotherapy and the Centre for Interdisciplinary Research. Skill based employability-driven programs include DMLT, OT Technician Training Certificate, Dialysis Technician Certificate in addition to MBBS, MD/MS, Medical Fellowships, B.Sc. in Hospitality, B.Sc, PB. B.Sc. and M.Sc. Nursing, M.Sc. programs in Medical Physics, B.PTh, Stem Cell and Regenerative Medicine, Medical Biotechnology and Doctoral programs in Interdisciplinary and Medical subjects.

Organisational values of transparency, participative management and decentralisation are reflected in internal quality assurance efforts, modernisation of the examination system, regular meetings of the Heads of Department and various statutory and non-statutory bodies. University has introduced an Annual Quality Assurance Exercise attesting to the pursuit of quality in all aspects at all times. Feedback from different stakeholders is used to assess, improve and excel in performance. Through this efforts University has been re-accredited with 'A' grade in 2017 which is valid for the period of five years. The University was ranked in top 100 Universities in India in 2018 by NIRF.

An ISO:9001-2015 certified, 800-bedded multispecialty Hospital provides academic, clinical training and a research platform. Free, rural medical camps and subsidized treatment ensure that primary to tertiary services are available to the poorest of the poor.

In keeping with Digital India mission, e-governance is instituted through pervasive use of computerisation and technology in all departments, moving towards paper-less

offices. Extensive use of ICT in education is supported by the latest in infrastructural requirements such as LCDs, Smart Boards, Visualizers, Simulations. Digital Library, E-database subscription (Pro-Quest, Pro-Quest Ebrary, INFLIBNET, NKN, MUHS e-resources), Telemedicine, Wi-Fi campus, OPAC in the library and Radiology department etc. contribute to the 'Digital India' vision. A customized Learning Management System allows for better curriculum delivery.

In keeping with global trends in higher education, University imparts to all students a globally relevant and locally applicable curriculum of international standards. Outcome and Skill based training is achieved through the Clinical Skill Labs, Cadaveric Skill Lab, an active Medical Education Training Unit, adoption of the latest pedagogy and assessment methods. Incorporation of research in both UG and PG programs, evidence-based teaching, interactive and case-based learning, early clinical exposure, industry-academia collaborations, remedial classes and emphasis on field and community-based visits ensure our graduates are competitive for both higher education and employment opportunities.

APJ Abdul Kalam Incubation Cell of the University was formed as continuum of the Brainstorming Unit in the RICH Cell (Research in Comprehensive Health). Start-Up Hero (2018) of the State of Maharashtra was awarded by the Hon'ble Union Minister Mr. Nitin Gadkari to Mr. Abhinandan Patil our PhD student. In Health Category at the same Start-Up camp, both first and second prizes were awarded to PhD students Mr. Deepak Sawant and Ms. Priyanka Patil. Presently the University hosts a DST-Inspire Fellow Dr. Umakant Patil and a Ramanujan Fellow Dr. J. L Gunjakar. Ms. Shital Kale was awarded the SERB Overseas Fellowship. This has been possible due to experienced faculty, coordinated Comprehensive Research Promotion Practices and requisite administrative and financial support. Research projects funded by ICMR, SEB-DST, CSIR, DRDO, BRNS, etc., and by the University are undertaken at facilities like Advanced Research Facilities, Animal House, Instrumentation lab, 3-D Printers, Stem Cell Research facility, Central Laboratory at the hospital, RICH Cell. Nineteen patents published/awarded, 17 books, 25+ chapters and 30+ conference proceedings, 1300+ publications and MOUs and collaborations in India, Australia, Sweden, South Korea, Taiwan, Nigeria, UK are some outcomes. Last year, total of 87 conferences and workshops and 103 Guest lectures were organised here and faculty attended 530

academic events in India and abroad. Other initiatives include Research certification of Undergraduates, annual research events for UG (Second MBBS Alliance for Research Training) and PG (Campaign Of University Research Training) students, Research Methodology workshops for UG, PG and Pre-PhD students, student exchange, faculty exchange, hosting and invited talks. The complement of 220 Postgraduate students and 70 PhD scholars and post-doctoral fellows carry out research in basic sciences and clinical areas as well as in emerging areas of nanomaterials, stem cell & regenerative medicine, medical physics, targeted drug delivery, nanobiotechnology, biosensors etc.

Holistic student development is a priority. Measures such as University Moral Guidance Scheme, Student Guardianship Program, Student Councils, PG Club, NSS, Women Development Cell, Internal Complaint Cell, Anti-Discrimination Cell, Student's Grievance Cell, Entrepreneurship Cell, Anti-ragging cell, Student Welfare Cell all contribute to providing a motivating and supportive environment conducive to optimising personal and professional potential of students.

Universal values and skills are integrated in student training through Students Bioethics Wing of UNESCO Bioethic Unit, NSS, soft-skills training, Language class, Counselling Centre, mentoring programs, career counselling, celebration of National days, social gatherings, sports and extracurricular activities. Students participate in programs such as Swachh Bharat Abhiyaan, Unnat Bharat Abhiyaan, Swachhata-hi-Seva, Rural Community Oriented Medical Training, Beti-Bachao Beti-Padhao, Handwashing campaign, Clean our Schools campaign, Stop Plastic campaign, save the girl child as also in social awareness walkathons, street plays, skits and roadshows.

A conscionable ISR yielded Public-Private Partnerships encompassing one Urban and four Primary Health Centers and one Rural Health training Center, Village Adoption program, five-village adoption under Unnat Bharat Abhiyaan program and RCOMET (Rural Community Oriented Medical Training) at four villages in Kolhapur District. The Family Health Insurance scheme launched by the Hospital ensures highly subsidized, affordable, State-of-the-Art primary and secondary health care to the populace.

Go-Green initiatives include using LED lights, roof-top solar panels, biogas plants, sewage treatment plants, recycling of e-waste, biomedical and sewage waste,

composting, tree plantations etc. in our campus, in addition to spreading awareness and education in the rural areas adopted. Twice in succession the campus has been shortlisted in the National Swachh Bharat competition for educational institutions.
Every successive accomplishment serves to bolster our enthusiasm, strengthen our belief and motivates us to do what Sam Levenson said, “Don’t watch the clock; do what it does. Keep going.”.

1. INSTITUTE VISION & MISSION:

VISION

To emerge as a premier global institution committed to quality-centric higher and professional education, refutative research, and comprehensive training, promoting inquisitive innovation, ingraining human values, and nurturing skilled professionals, who excel in global competitiveness in an all-round manner while embodying strong social responsibility and accountability.

MISSION

1. To deliver quality-centric offline and online educational programs, conducting and promoting cutting-edge research that advances knowledge and fosters inquisitive innovation and transformative learning blended with out of box thinking.
2. To promote a culture of creativity, entrepreneurship and life-long learning, empowering the learners and faculty to generate impactful solutions towards mitigation of worldwide contemporary and long-term concerns and challenges.
3. To instill ethos principles, social responsibility, commitment to equity, diversity and inclusivity in an all-round manner.
4. To equip the learners with the armory of positive attitude, updated knowledge, meaningful skills, immaculate leadership, and experiences vital to excel in the competitive global parlance availing state-of-art infrastructure.
5. To meaningfully engage with local and global communities to address pressing concerns and challenges and contribute to their mitigation towards sustainable development and overall well-being of populace and mother planet in unison.

1.1 Institutional Objectives:

To emerge in the Global comity of accredited and top-ranked higher education institutions in the incoming decade and meaningfully transform the demographic dividends into most precious human resource.

D. Y. Patil Education Society, (Deemed to be University), Kolhapur demonstrates its commitment to implement sustainable solutions in different ways. It has taken a number of positive steps to reduce possible environmental impact. The management is keen on accepting new ideas of resource management.

This report can be a management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects." In view of making green and eco-friendly campus the organization has taken an important step to understand the environmental parameters within the campus. This report serves to highlight, the efforts towards greener campus. The first step taken in this direction is establishing a baseline of existing condition.

An energy audit is an inspection and analysis of energy flows in a building with the objective of understanding the energy efficiency of building being audited. Typically, an energy audit is conducted to seek opportunities to reduce the amount of energy used by the facility without negatively affecting the comfort of the facility or the production/output in case of a business. This includes identifying the systems and areas of opportunity that will have the greatest impact in improving comfort, indoor air quality, durability & reliability.

2.1 Campus planning and construction

Energy Conservation

The college campus has planned in 23 Acre quite significantly that, there is enough open space, greenery, playground and 51 ventilated spacious classrooms and seminar halls to accommodate students. The build-up area is 808460 Sq. feet. The energy utilization pattern of college on any working day is as follows:-

Instructional Area:

SN	Room Type (Mention Class Room/ Lab/Toilet, etc.)	Completion of Flooring	Completion of Walls and Painting	Completion of Electrification and Lighting
1	Classrooms	Yes	Yes	Yes
2	Seminar Hall	Yes	Yes	Yes
3	Sport Department	Yes	Yes	Yes
4	Examination department	Yes	Yes	Yes

Administrative area:

SN	Room Type (Mention Class Room/ Lab/Toilet, etc.)	Completion of Flooring	Completion of Walls and Painting	Completion of Electrification & Lighting
1	Central Store	Yes	Yes	Yes
2	Faculty Room	Yes	Yes	Yes
3	Security	Yes	Yes	Yes
4	Cabin for Head of Dept	Yes	Yes	Yes
5	Office All Inclusive	Yes	Yes	Yes

Amenities area:

SN	Room Type (Mention Class Room/Lab/Toilet, etc.)	Completion of Flooring	Completion of Walls and Painting	Completion of Electrification & Lighting
1	Girl's Common Room	Yes	Yes	Yes
2	Boy's Common Room	Yes	Yes	Yes
3	Toilet	Yes	Yes	Yes
4	Sport Auditorium	Yes	Yes	Yes
5	Seminar hall	Yes	Yes	Yes

Circulation Area:

SN	Room Type (Mention Class Room/Lab/Toilet, etc.)	Completion of Flooring	Completion of Walls and Painting	Completion of Electrification & Lighting
1	Corridors	Yes	Yes	Yes
2	Staircases	Yes	Yes	Yes

Electricity utilization pattern

Energy Utilization Places	Appliances with approximate Quantity	Approximate Total Consumption
Classrooms, Laboratories, Computer laboratories & all Departments, Administrative Office, Principal Office, Auditorium, Board Room, Examination Department, Boys & Girls Common Room, Library etc.	AC -48, Fan-1318, Tube light – 948, LED Bulb – 2230, Corridors & Common area lights -22, Computers -549, Printers - 87, Server – 4, Xerox machine - 10, Scanner - , Projector - 39, TV-23, Refrigerator-28, Auto clave-, Microwave Oven-15, water Purifier & Water Cooler-51, Water Pumps -12, CCTV – 232, Geyser- 5, Air blower-5, etc.	Monthly avg. power Req.= 12000-12500 Kwh Avg. Solar Power Generated= 1000-1500 Kwh Avg. Avg. Net Power taken from MSEB= 10000-10500 Kwh

Action:

1) Height and size of the windows in classrooms provide adequate ventilation. There is no heat trapping mechanism and glare due to excessive use of glass in the campus.

2) There is less construction cost due to well-designed structure. Interaction space for the students is maintained, thus utilizing the optimum space.

3) There is consideration for disaster management.

4) Strictly turning of monitors, fan, tube lights, and laboratory instruments after the work.

5) Organizing lectures on energy conservation in order to give awareness to the students.

6) Perhaps the most significant improvement has been the general switch from CRT (cathode ray tube) monitors to LED (Light Emitting Diode display)/flat panel display monitors. This change occurred in response as an initiative for meeting Kyoto Protocol standards. Although over twice as expensive up front, LED monitors are estimated to use 40-60% less energy overall than CRTs.

1) All computers purchased by the college have an Energy Star rating, which is beginning to be a standard requirement for computers.
2) Solar unit is installed, step towards use of renewable energy.
3) All tubes and bulbs being used of LED types
4) Due to ample cross ventilation and windows there is very less electricity consumption during day time.

Conclusion:

The findings of this report show that the college performs fairly well on sustainability issues. The college does consider the environmental impacts of most of its actions and makes a concerted effort to act in an environmentally responsible manner. In conversations with faculty, staff, and administration at the college, A policy to minimum possible use of energy to sustain environment has been decided.

Energy efficiency is the need of future. The organization shows a potential to become energy efficient institution, which can be collective step toward the direction of renewable energy, environmental protection, and sustainable living. Having such an organization helps management reduce their bills and provides an excellent investment.

Suggestion:

Routine energy auditing will help organization to

(i) Map energy usage within the organization

(ii) Conserve energy,

(iii) Improve energy efficiency and thereby

(iv) Maximize their institutional energy and cost savings.

Energy Policy

D. Y. Patil Education Society, (Deemed to be University), Kolhapur is dedicated to the responsible and sustainable consumption of energy. We dedicated ourselves for

- Reduction of energy use in the premises.
- Reduction of dependability on exterior energy sources.
- Reduction of environmental damage and pollution.
- Reduction of damage to the environment associated with the exploitation of resources
- Reduction of energy bills.
- Increase the life span of the equipment in college premises.
- Increase in cost-effectiveness through optimization of energy expenditure