



गोंडवाना विद्यापीठ, गडचिरोली

(महाराष्ट्र शासन अधिसूचना क्रमांक २००७/(३२२/०७) विशि -४ महाराष्ट्र अधिनियम १९९४ (१९९४ चा महा.३५) च्या कलम ३ च्या पोटकलम (२) अन्वये दिनांक २७ सप्टेंबर, २०११ रोजी स्थापित राज्य विद्यापीठ)

(आस्थापना विभाग)

एम.आय.डी.सी. रोड कॉम्प्लेक्स गडचिरोली - ४४२६०५

फोन नंबर ०७१३२-२१६५९२

क्र. गो.वि/आस्था/२८५१/२०१६

दि. : १९ /११/२०१६

परिपत्रक

विषय :- कागदाचा काटकसरीने वापर तसेच पाणी व उर्जा वाचवण्याचा उपक्रम.

संदर्भ :- मा. राज्यपाल यांचे उपसचिव चे पत्र क्रं. सीएस./जन/३८/१६/डी/२९४५,
दि ३/११/२०१६.

गोंडवाना विद्यापीठातील संलग्नीत सर्व महाविद्यालयांच्या प्राचार्यांना सुचित करण्यात येते की, उपरोक्त संदर्भिय पत्रामध्ये नमूद केल्याप्रमाणे तसेच संलग्नीत दि. ०३ ऑक्टोबर २०१६ च्या पत्रात निर्देशित केल्यानुसार आपल्या संस्थेतील सर्व व्याख्याता, अधिकारी, कर्मचारी व विद्यार्थ्यांच्या याबाबी अनुकरणासाठी निदर्शनास आणुन देण्यात याव्या. सदर कार्यवाहीची अमलबजावणी आपल्या स्तरावर करण्यात यावी.

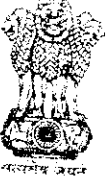
सहपत्र संलग्न:-

१. उपरोक्त संदर्भिय पत्र.
२. दि.३ ऑक्टोबर २०१६ चे पत्र.
३. डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद यांचे पत्र

(डी. एस. जुनघरे)

कुलसचिव(का)

गोंडवाना विद्यापीठ, गडचिरोली



DEPUTY SECRETARY TO THE GOVERNOR OF MAHARASHTRA

CS/Gem/38/16/D/2945

RAJ BHAVAN MALABAR HILL MUMBAI 400 035

3 November 2016.

ग. प्रथम विद्यापीठ महाराष्ट्र
कुलगुरुंचे कार्यालय
आक. क्र. 948 दि. 10/11/16
जाचक क्र. 1146 दि. 10/11/16

1426 10/11/16
5813 10/11/16

TO,

The Vice-Chancellor,
Gondwana University,
MIDC Road Complex,
Gadchiroli-442 605.

गोंडवाना विद्यापीठ महाराष्ट्र
आक. क्र. 5043 दि. 11/11/16
जाचक क्र. दि.

Subject : Regarding use of both sides of papers for submission of academic works to conserve water and energy...

Sir,

I am directed to enclose herewith a copy of the letter dated 3rd October 2016, received by the Chancellor, from Shri Shreyans Mutha and other students of the Final Year Civil Engineering Course, Govt. Engineering College, Aurangabad, on the subject mentioned above, for consideration and appropriate action.

Registered
circulate to all concerned
and implement in the Office

Yours faithfully,
Parimal Singh

(Parimal Singh)
Deputy Secretary to the Governor (Edn).

Dr. Dube DR
10/11/16

10/11/16
11/11/16

10/11/16
15/11/16

Date: 03-10-2016

50011/33/2016

To
The Hon'ble Chancellor
Raj Bhawan, Walkeshwar Road,
Malbar Hill,
Mumbai-400 035

D.S. (E)

06/10/16
1883352

Subject: Saving of Papers, Water and Energy by Optimum Utilization of Journal Papers used for Submission Works by Students

Respected Sir,

We, the undersigned, students of final year Civil Engineering course, studying at Government Engineering College, Aurangabad (GECA) are aspiring to accomplish a discipline of Solid Waste Management as our project work.

- 1) As a part of curriculum, under graduate and post graduate students have to submit write up or print outs for practical, laboratory works, seminar, project works, assignments and dissertation works on paper.
- 2) For manufacturing of paper, a blend of wood, water and energy is required.
- 3) Since many years, it is a common practice/trend of almost all students to write or print the submission works on single side of papers. Hence, the other plain side gets wasted.
- 4) We have carried out a survey and a study for consumption of papers and its allied environmental parameters required for undergraduate and post graduate engineering courses in GECA and all over Maharashtra. Table Number 1 gives statistics of different environmental parameters related with the production of paper and their annual requirements.

Table Number 1

Item	Required Magnitude for Production of One Ton of Paper	Required Magnitude Per Student for UG engineering courses (600 papers i.e 2.4 kg per year)	Required Magnitude for GECA (1710 students, 4.104 ton paper per year)	Required Magnitude for Undergraduate Engineering students in Maharashtra (414000 students, 993.60 ton paper per year)	Required Magnitude Per Student for PG engineering courses (750 papers i.e 3.0 kg per year)	Required Magnitude for Postgraduate Engineering students in Maharashtra (11600 students, 34.8 tons of paper per year)
Energy	1000 kWh	2.4 kWh	4104 kWh	993600kWh	3 kWh	34800 kWh
CO ₂ Emission	2.20 ton	0.00528ton	9.0288 ton	2185.92 ton	0.0066ton	76.56 ton
Waste Water Generation	120 m ³	0.288 m ³	492.48m ³	119232 m ³	0.36 m ³	4176 m ³
Trees	17	0.04	69.7	16560	0.05	580

- 5) It is inferred that, if the students are directed to write/print the submission works on both sides of paper; it will save about 40 % of total papers required and subsequently energy, water and trees. It will considerably reduce CO₂ emission and quantity of waste water generated. Table Number 2 gives statistics of probable saving of paper and allied environmental parameters.

Submitted
thru MOC,

06/10/16
21/10/16

TABLE NUMBER 2

Annual Savings of Papers, Water, Energy & Other Important Aspects in GECA and All Over the Maharashtra for Under Graduate & Post Graduate Engineering Students

Description	Annual Saving in GECA			Annual Saving for all over Maharashtra		
	UG (1710 Students)	PG (126 Students)	Total	UG (414000 Students)	PG (11600 Students)	Total
Saving in Number of papers	410400	37800	448200	99360000	3480000	102840000
Saving in weight of papers	1.6416 ton	0.1512 ton	1.7928	397.440 ton	13.92 ton	411.36 ton
Energy Saved	1641.6 kWh	151.20 kWh	1792.8 kWh	397440 kWh	13920 kWh	411360 kWh
Reduction in CO ₂ emission	3.6115 ton	0.3326 ton	3.9441 ton	874.368 ton	30.624 ton	904.992 ton
Reduction in waste water generation	196.992 m ³	18.144 m ³	215.136 m ³	47692.80 m ³	1670.40 m ³	49363.20 m ³
Trees Saved	27.36	2.57	29.93	6624	236.64	6860.64

- 6) After formulating this study into a report, we approached Principals/Directors of six different engineering colleges at Aurangabad, Joint Director, Technical Education, Aurangabad Region and also the Vice-Chancellor, Dr.B.A.Marathwada University, Aurangabad; who issued circulars and directed students to use both sides of papers for submission works.
- 7) We presented the above theme in the National Technical Event 'MindSpark' 16' under the module 'Green Spectrum' at College of Engineering, Pune (COEP) on 24th and 25th of September 2016, wherein we won the first prize. The local newspapers viz. Dainik Lokmat, Daily Lokmat Times, Maharashtra Times and Dainik Divya Marathi have covered the theme by publishing the news.
- 8) If the policy of use of both sides of papers is implemented for all undergraduate and postgraduate courses in Maharashtra, considerable amount of papers, energy and water can be saved. Even the copies of PhD thesis can be printed on both sides of papers. The UG and PG study reports regarding saving in papers and allied environmental parameters are attached herewith. The necessary directives may please be issued to all colleges and Universities for the use of both sides of papers for submission of academic works to conserve water and energy.

Thanking you with regards,

Yours faithfully,

B.E. (Civil) students-

Mr. Shreyans Mutha, Mr. Nikhil Mahale, Mr. Rushabh Thole, Ms. Swarrasha Bedmutha

Mr. Amol Chaudhari, Ms. Seema Kolte, Ms. Rajashri Sarode, Ms. Ashwini Gapat

Ms Kiran Ahire and

Dr.U.J.Kahalekar, Professor in Civil Engineering, Govt. Engineering College, Aurangabad, (09422207977, ukahalekar@rediffmail.com), Project Guide to B.E. (Civil) students



SAVING OF WATER AND ENERGY THROUGH OPTIMUM UTILISATION OF JOURNAL PAPERS FOR UNDERGRADUATE COURSES IN ENGINEERING

- 1) Dr. U.J.Kahalekar
(Professor in Civil Engineering, Government College of Engineering, Aurangabad (GECA))
- 2) Mr. Rushabh S.Thole (BE CIVIL Student, GECA)
- 3) Mr. Nikhil S. Mahale (BE CIVIL Student, GECA)
- 4) Mr. Shreyans J. Mutha (BE CIVIL Student, GECA)
- 5) Ms. Swarrasha S. Bedmutha (BE CIVIL Student, GECA)
- 6) Mr. Amol A. Chaudhari (BE CIVIL Student, GECA)
- 7) Ms. Rajashri K. Sarode (BE CIVIL Student, GECA)
- 8) Ms. Seema P. Kolte (BE CIVIL Student, GECA)
- 9) Ms. Kiran M. Ahire (BE CIVIL Student, GECA)
- 10) Ms. Ashwini S. Gapat (BE CIVIL Student, GECA)

1. INTRODUCTION

As a part of curriculum, engineering students have to submit write up or print outs of submission works for practical, assignments, seminar works or project works. It is a common practice of students to write the submissions of practical and assignments on single side of journal paper. Similarly, it is a common practice to print seminar, project works on single side of papers. The size of paper which is used by students is A 4 (21 cm x 29.5 cm). It observes that the other side of paper used for submission works, which is plain, gets wasted. If students are directed to write on both sides of paper, it will save substantial number of papers and thus water and energy will also be saved. Using less number of papers will also reduce pollution. Writing or printing of submission works on both sides of journal papers will have no adverse effect on quality of academics as well as on knowledge inputs of students.

2. WATER AND ENERGY CONSUMPTION FOR PRODUCTION OF PAPER

Pulp and paper industry consumes large quantities of fresh water. It consumes fresh water more than 120 m³/t of paper depending on the type of raw material being used. Disposal of wastewater from paper and pulp industries, containing various chemicals is the greatest environmental concern. Few of the large paper mills have upgraded their Effluent Treatment Plant (ETP) with installation of tertiary treatment system for better effluent quality. Few agro-based paper mills have installed the non-conventional chemical recovery system, to incinerate the black liquor, which is one of the major causes of pollution, coupled with a system for tertiary treatment.

For mill producing writing printing paper and newsprint average power consumption is 1500 to 1700 kWh/ton and wastewater generation is about 150 m³/ton.

3. CASE STUDY

3.1 Intake Capacity:

Govt. College of Engineering, Aurangabad is a prime institute in Marathwada region in Maharashtra State. The institute is established in the year 1960 and institute runs 6 undergraduate engineering courses viz. Civil, Mechanical, Electrical, E & TC, Computer and Information Technology. Along with undergraduate courses, institute also runs MCA course with intake of 60 and seven PG courses in engineering with 18 intakes each. In this study, six

undergraduate courses are considered. The number of undergraduate students in the institute is as below:

Table Number 1
Number of Undergraduate Students in GECA

Course	Number of first year students	Number of second year, third year, fourth year students	Total Number of students
Civil Engineering	60	75x3=225	285
Mechanical Engineering	60	75x3=225	285
Electrical Engineering	60	75x3=225	285
Electronics And Telecommunication	60	75x3=225	285
Computer Science Engineering	60	75x3=225	285
Information Technology	60	75x3=225	285
TOTAL			1710

3.2 Paper Requirement:

It observes that there are minimum 6 practical and 10 assignments which require 450 pages per year per student. Along with submission works of practical and assignments, students from higher classes have to submit print outs of the seminar and project works. Commonly students use A 4 size papers, which are available in market. One set of paper consists of 100 pages and has weight of 0.400 Kg per set. The tentative requirement of papers and weight thereof is as below:

Table Number 2
Number and Weight of Papers Required for Undergraduate Engineering Students in GECA per Year
(Total Number of Students 1710)

Item	Minimum Number of Pages required per student	Weight (kg) of paper per student	Total number of pages required for 1710 students	Weight of paper for 1710 students (Kg)
Submission works of practical and Laboratory works	300	1.2	513000	2052
Assignments	150	0.600	256500	1026
Seminar and Project	150	0.600	256500	1026
Total	600	2.4	1026000	4104

3.3 Energy, Water and Other Requirements:

During manufacturing process of papers in agro based mills, water and energy is required for production of papers. Major raw materials used in Indian paper industries are hard wood and Bamboo. For production of papers chemicals are also required, which further contribute in pollution of air, ground water and surface water. The CO₂ emissions and wastewater

gives the requirement of trees and energy for manufacture of papers. The table also gives statistics of CO₂ emissions and wastewater generated during manufacture of papers

Table Number 3
Important Aspects Related With Energy and Environment

Item	Magnitude for Production of One Ton of Paper	Magnitude for GECA (0.378 ton paper, 126 students)	Magnitude Per Student
Energy	1000 kWh [1]	378 kWh	3 kWh
CO ₂ Emission	2.20 ton [3]	0.8316 ton	0.0066ton
Waste Water Generation	120 m ³ [1],[2]	45.36 m ³	0.36 m ³
Trees	17 [4]	6.4	0.05

3.4 State Level Statistics for Water, Energy and other Environmental Parameters:

The intake capacity of postgraduate engineering courses in Maharashtra is 19,338. For finding the requirement of papers and other environmental parameters, it is assumed that 60% of intake capacity i.e. about 11600 students pursues the studies for Post-Graduation Engineering Courses. For these 11600 students papers are required for their submission works in different subjects and dissertation works. Table Number 4 gives statistics of energy, water requirements for manufacturing of papers and other important parameters for manufacture of papers required for post graduate students in Maharashtra.

Table Number 4
Total Annual Consumption of Energy & Other Aspects
(In Maharashtra)

Item	Magnitude Per Student	Magnitude for Postgraduate Engineering students in Maharashtra (11600 students)
Weight of Papers Required	0.003 ton	34.8 ton
Consumption of Energy to Produce Papers	3 kWh	34800 kWh
Emission of CO ₂	0.0066ton	76.56 ton
Generation of Waste Water	0.36 m ³	4176 m ³
Trees Required	0.05	580

4. CHANGE OF PRACTICE OF SUBMISSION WORKS AND ITS IMPACT ON ENVIRONMENT

The quantity of papers used per year in the institute GECA with the intake of 126 students per year for post graduate engineering courses is about 0.378 ton. If the policy of write up of submission of laboratory works, assignments and printing of Dissertation works is changed and directives are issued to use both sides of journal papers, that will save papers, water and energy. Papers required to write journals for laboratory works, seminars and assignments are about 150. Similarly, students are submitting two copies of Dissertation I. The pages required for Dissertation I are about 100. Thus total 250 pages are required per student. It is assumed that 40 % papers (i.e.100 pages) can be saved by permitting the students to write/print on both sides for submission works. Right now, M.E. students are submitting 5 copies of dissertation works. Out of 5 copies of dissertation works one copy of student can be permitted for printing on single side. If the policy of printing of Dissertation

If work is changed and the students are directed to make one copy on single side of paper and remaining 4 copies are printed on both sides of papers, that will save about 200 papers per student. Therefore, total papers saved per student will be 300.

Table Number 5 gives the statistics of annual savings of paper, water and energy if the write up/printout of submissions are carried out on both sides of papers. The table also gives statistics of reduction in CO₂ emissions, generation of wastewater and savings of trees.

Table Number 5

Annual Savings of Papers, Water, Energy & Other Important Aspects in GECA and All Over the Maharashtra

Description	Saving (per student)	Saving in GECA (Intake Capacity 126 students)	Saving for all over Maharashtra (11600 students)
Saving in Number of papers	300	37800	3480000
Saving in weight of papers	0.0012 ton	0.1512 ton	13.92 ton
Energy Saved	1.2 kWh	151.20 kWh	13920 kWh
Reduction in CO ₂ emission	0.00264 ton	0.3326 ton	30.624 ton
Reduction in waste water generation	0.144 m ³	18.144 m ³	1670.40 m ³
Trees Saved	0.02	2.57	236.64

5. CONCLUSION

As a part of curriculum the Post graduate engineering students have to submit write up/print outs of submission works for laboratory works, assignments, seminars and dissertation works. Students use A 4 size papers for their submission works. Since many years, it is a common practice to write/print the submission works on single side of papers. The other plain side gets wasted. If the students are directed to use both sides of papers for their submission works that will reduce substantial number of papers.

The studies are carried out regarding savings in paper use, water consumption and energy by implementing the policy of writing the submission works on both sides of papers. The intake capacity of Post Graduate Engineering courses for Govt. Engineering College, Aurangabad (GECA) is 126 and presently this number of students requires 94500 papers. It observes that with the change in policy of using papers on both sides, every year total 37800 number of pages can be saved and thus 151.20 kWh energy and 18144 liters of waste water generation can be saved. The annual saving in energy and waste water at Maharashtra State level could be 13920 kWh and 1.67 Million Liters. Indirectly the number of trees can also be saved. Reduction in use of papers can reduce CO₂ Greenhouse gas emission and pollution of air and water.

It is recommended that appropriate authority shall issue guidelines to students to submit the write up or print outs of submission works on both sides of paper to conserve nature and environment.

6. REFERENCES

- 1) Central Pulp and Paper Research Institute, (2002) Final Report Draft on 'Global Competitiveness of the Indian Paper Industry': 44-45
- 2) The Environment (Protection) Act, 1986
- 3) [www.cseindia.org/userfiles/91-104%20Paper\(1\).pdf](http://www.cseindia.org/userfiles/91-104%20Paper(1).pdf): 96(Center for Science & Environment)
- 4) <https://engineering.dartmouth.edu/~d30345d/courses/engs171/Paper.pdf> : 7

International Centre of Excellence in Engineering and Management
ICEM

INDIAN INSTITUTE OF TECHNOLOGY (IIT) BOMBAY
Department of Chemical Engineering

International Centre of Excellence in Engineering and Management
ICEM

International Centre of Excellence in Engineering and Management
ICEM

International Centre of Excellence in Engineering and Management
ICEM

International Centre of Excellence in Engineering and Management
ICEM

Circular issued by various colleges in Aurangabad region.

Uttat Maharashtra Abhiyan (UMA)
 Centre for Technology Advancement in Rural Areas (CTARA)
 Indian Institute of Technology, Bombay (IITB)

- Projects
- Reports
- Water
 - Supply Water Scheme - Multi-stage drinking water scheme analysis - September, 2011 (pdf)
 - Drinking water solutions for remote terrain - Analysis and Design report - March, 2013 (pdf)
 - Improving Drinking Water Provisioning in Raibham City - Phase I report - May, 2015 (pdf)
 - Waterless interventions for habitations in Kurud and Botoshi, Phase II report - July, 2015 (pdf)
 - Vajreshwar Ganeshpuri Rural Regional Scheme - Feasibility Report on Options for Scheme Improvement and Augmentation - March, 2016 (pdf)
- Conservation of Resources
 - Conservation of Paper Study done at Government College Aurangabad (Project Appendix), Resulting Circular from DTE, Aurangabad (pdf)

Sl. No.	Project/Report Title	Year	Status
1	Supply Water Scheme - Multi-stage drinking water scheme analysis - September, 2011 (pdf)	2011	Completed
2	Drinking water solutions for remote terrain - Analysis and Design report - March, 2013 (pdf)	2013	Completed
3	Improving Drinking Water Provisioning in Raibham City - Phase I report - May, 2015 (pdf)	2015	Completed
4	Waterless interventions for habitations in Kurud and Botoshi, Phase II report - July, 2015 (pdf)	2015	Completed
5	Vajreshwar Ganeshpuri Rural Regional Scheme - Feasibility Report on Options for Scheme Improvement and Augmentation - March, 2016 (pdf)	2016	Completed
6	Conservation of Paper Study done at Government College Aurangabad (Project Appendix), Resulting Circular from DTE, Aurangabad (pdf)	2016	Completed

Report uploaded on IIT CTARA website and joint director technical education Aurangabad region

डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद

नेक समिती तर्फे अ दर्जा प्राप्त

कार्यालय दुरध्वनी : २४०३ ३९९ - ४००

फॅक्स (०२४००) : २४०३ ३३५, २४०३ २२४

२४०३ ३३५

Email : boud.office@bamu.ac.in



विद्यापीठ परिषद
औरंगाबाद - ४३००००
(महाराष्ट्र)

संदर्भ क्र.बीसीयुडी/ २०१६/१००-१०१

दि. २६/०८/२०१६

प्रति,

प्राचार्य

सर्व संलग्नित महाविद्यालये

डॉ. बाबासाहेब आंबेडकर

मराठवाडा विद्यापीठ, औरंगाबाद

विषय :- मराठवाडा काटकसरीच्या वापराने पाणी व उर्जा वाचविण्याचा अभियान उपक्रम
संदर्भ :- शासकीय अभियांत्रिकी महाविद्यालय, औरंगाबाद या संस्थेतील प्रा. यु. जे. 'कहाळेकर' व अंतिम वर्ष स्थापत्य अभियांत्रिकी शाखेतील विद्यार्थ्यांचे दिनांक २६/०८/२०१६ रोजीचे पत्र.

महोदय,

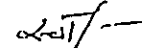
उपरोक्त संदर्भिय विषयान्वये विभागातील सर्व प्राचार्य / संचालक यांना कळविण्यात येते की, शासकीय अभियांत्रिकी महाविद्यालय, औरंगाबाद या संस्थेतील अंतिम वर्ष स्थापत्य अभियांत्रिकी शाखेतील काही विद्यार्थ्यांनी कागदाच्या काटकसरीच्या वापराने पाणी व उर्जा वाचविण्यासंदर्भात त्यांनी केलेल्या सर्वेक्षणाचे अहवाल व निष्कर्ष आपल्या संस्थेतील सर्व अधिकारी, अध्यापक, अभिव्याख्याता, सत्र कर्मचारी व विद्यार्थ्यांच्या निदर्शनास आणून देण्यात येत आहे.

शासकीय अभियांत्रिकी महाविद्यालयातील खालील विद्यार्थ्यांनी संस्थेचे प्रा. डॉ. यु. जे. कहाळेकर, प्राध्यापक स्थापत्य यांच्या मार्गदर्शनाखाली कागदाच्या काटकसरीच्या वापराने व उर्जा वाचविण्यासाठी सर्वेक्षण केले आहे.

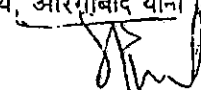
सर्वेक्षणात सहभागी विद्यार्थ्यांची नावे - १. श्रेयश मुथा २. निखिल महाले ३. प्रबभ उले ४. स्वराशा बेधमुथा ५. अमोल चोधरी ६. सीमा कोलते ७. राजर्षी सरोदे ८. अधिनी गपाट

सर्वेक्षणाचे प्रमुख निष्कर्ष खालील प्रमाणे आहेत.

अभ्यासक्रमाचा एक भाग म्हणून पदवी अभियांत्रिकीचे विद्यार्थ्यांना प्रात्यक्षिके, प्रकल्प अहवाल, सेमिनार इ. चे रिपोर्ट सादर करणे क्रमप्राप्त असते. विद्यार्थ्यांच्या सर्वेक्षणाच्या अहवालात नमुद केल्याप्रमाणे शासकीय अभियांत्रिकी महाविद्यालयातील एकूण १७१० विद्यार्थी १०,२६००० कागदाचा वापर सत्रकाम सादर करण्यासाठी करतात. (for team work submission) जर या विद्यार्थ्यांनी कागदाच्या दोन्ही बाजूचा वापर केल्यास एका वर्षात ४,१०,४०० कागदाची बचत करता येवू शकते व त्यामुळे १६४१.६० kwh इतक्या उर्जेची बचत होऊ शकते व राज्य स्तरावर ३,९७,४४० kwh व ९९.३६ दशलक्ष कागदांची बचत होऊ शकते. त्यासोबत मोठ्या प्रमाणांमध्ये प्रदुषणामध्ये घट होऊ शकत असल्याबद्दल निष्कर्षात नमुद केले आहे. विद्यार्थ्यांचे सदरील सर्वेक्षणाचे अहवाल यासोबत अवलोकनासाठी सोबत जोडण्यात येत आहे. विद्यार्थ्यांनी केलेला हा उपक्रम अत्यंत स्तुत्य असून आपल्या संस्थेतील सर्वांसाठी अनुकरणीय आहे.

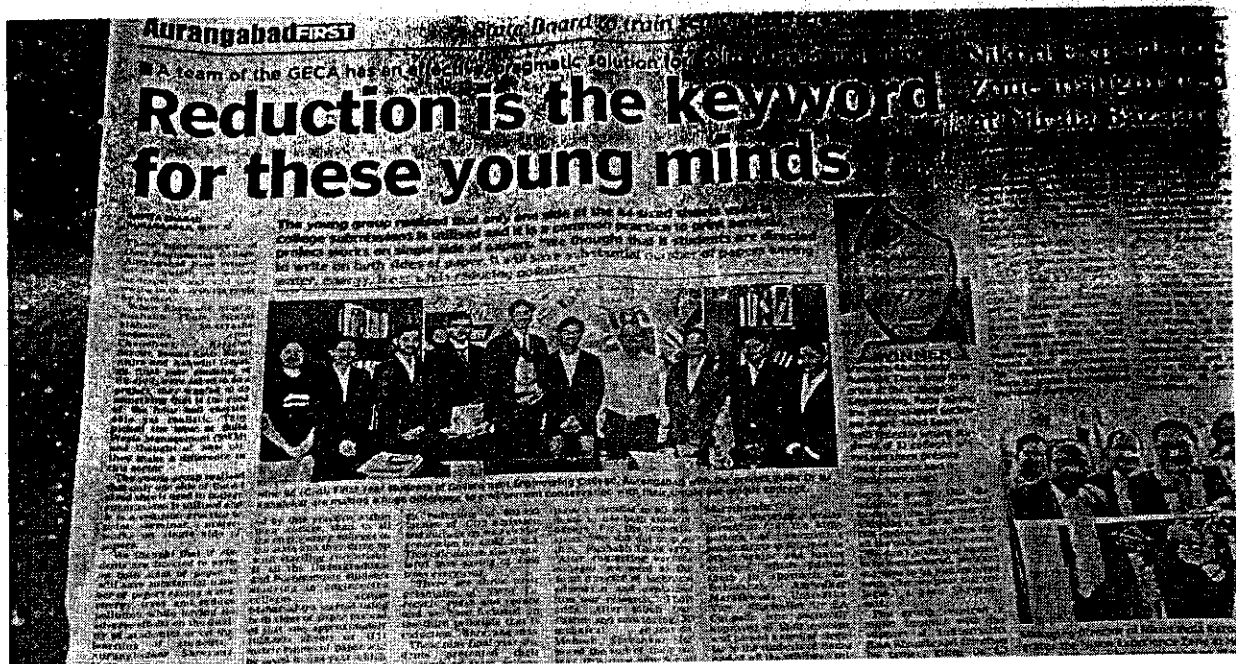

संचालक,

महाविद्यालय व विद्यापीठ विकास मंडळ
या पत्राची एक प्रत प्राचार्य, शासकीय अभियांत्रिकी महाविद्यालय, औरंगाबाद यांना माहितीस्तव.

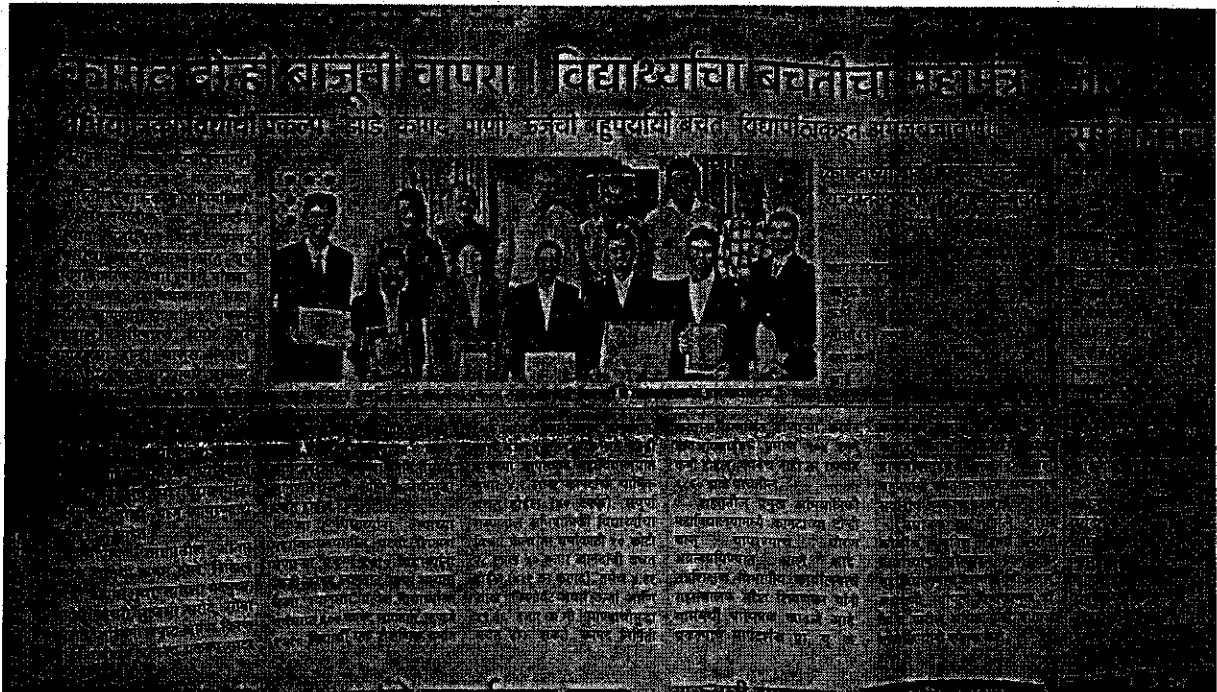

संचालक, म.वि.वि.मं.



Divyamarathi (1/10/16)



Lokmattimes (29/9/16)



--Dainik Lokmat (29/9/16)--

वीज, ऊर्जेची अशीही बचत शक्य

कागदाच्या काटकसरीने वापराचा इंजिनीअरिंग विद्यार्थ्यांचा प्रकल्प

म. शा. विद्यार्थ्यांचा प्रकल्प

आयुष्यसंगत होईल मोठी बचत

विद्यार्थ्यांच्या वीज, ऊर्जेची अशीही बचत शक्य आहे. कागदाच्या काटकसरीने वापराचा इंजिनीअरिंग विद्यार्थ्यांचा प्रकल्प यशस्वीपणे सुरू झाला आहे. या प्रकल्पात विद्यार्थ्यांनी वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल. याने विद्यार्थ्यांना वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल. याने विद्यार्थ्यांना वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल.

आयुष्यसंगत होईल मोठी बचत

विद्यार्थ्यांच्या वीज, ऊर्जेची अशीही बचत शक्य आहे. कागदाच्या काटकसरीने वापराचा इंजिनीअरिंग विद्यार्थ्यांचा प्रकल्प यशस्वीपणे सुरू झाला आहे. या प्रकल्पात विद्यार्थ्यांनी वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल. याने विद्यार्थ्यांना वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल.

आयुष्यसंगत होईल मोठी बचत

विद्यार्थ्यांच्या वीज, ऊर्जेची अशीही बचत शक्य आहे. कागदाच्या काटकसरीने वापराचा इंजिनीअरिंग विद्यार्थ्यांचा प्रकल्प यशस्वीपणे सुरू झाला आहे. या प्रकल्पात विद्यार्थ्यांनी वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल. याने विद्यार्थ्यांना वापरलेल्या कागदाचे वजन मोजून त्याचे वजन त्यांच्या वीज बिली दाखविले जाईल.

Maharashtra times (29/9/16)