



Guru Nanak Educational Society's  
**GURU NANAK INSTITUTE  
OF ENGINEERING & TECHNOLOGY**

APPROVED BY AICTE, DTE & AFFILIATED TO RTM NAGPUR UNIVERSITY, NAGPUR  
Dahegaon, Opp IOC Petrol pump, Kalmeshwar Road, Nagpur- 441501 Ph. 07118-661400  
Website: www.gniel.ac.in E-mail: gnielnagpur@gmail.com



**Department of Applied Sciences & Humanities**

Session 2022-23

**NOTICE**

All the students of ASH Department (B.Tech. 1st year) are hereby informed that the mini-projects of different subject should submit their names to respective subject teachers till 5th January 2023. Student's have to make groups(4 to 5 students) from each section. The teachers and subjects name are as follows:

1. Applied Physics-Prof. Sadaf Gauhar/Prof. Shradhha Dudhkar
2. Energy and Environment-Prof. Pranali Kharwade/Prof. Suharshana Somkuwar
3. Mathematics- Prof. Fouziya Ansari/Prof. Sandip Bhongade
4. Communication Skills-Prof. Shamina Siddique
5. Engineering Graphics- Prof. Vijay Tayde/Yashraj Chopkar
6. Engineering Mechanics- Prof. Pranjali Markand

Coordinator of Mini Project

HoD (ASH, GNIET)

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**Department of Applied Sciences & Humanities**

**(B. Tech. First Year)**

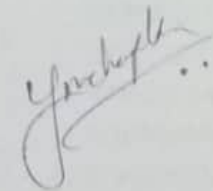
Session: 2022-23

**First Semester Section A**



S.No.	Name of Students on Group	Guide Name	Title of Project
1.	AMBULE CHAITANYA PRALHAD BAGMARE SWATI RAJU BANGARE OJASWI VIJAY BANKAR AKSHAY YOGESHWAR BANKAR ARPITA UMESH	Prof. Vijay Tayde	Automtic Bell Ringing System
2.	BHATIYA HARSH JARNAIL SINGH CHANDURKAR AKSHAY GUNVANTA CHANNE GOVINDA DILIP CHAVHAN YASH ANIL CHOUDHARY RAJVI RAMESH	Prof. Vijay Tayde	DoorTouch bell
3.	GADGE NEHA GOVINDRAO GAJBHIYE ANSHUREE KASHYAP GHUSAR NATASHA KAILASH IRATKAR SHREYA GAJANAN JAISWAL TANMAYI KAMALKISHOR	Prof. Yashraj Chopkar	Water level Indicator
4.	KAMBLE SHREYA SUNIL KAPSE BHIMSHREE SURESH KAPSE MRUNAL DINESH KATHOKE SHREYA VINOD KEWATE HARSHWARDHANI SUNIL	Prof. Yashraj Chopkar	Remote Tester
5.	MANKAR VAISHNAVI PRALHAD MESHAM SHEJAL MADAN MUSALE GAYATRI VISHNU NAGOSE PRANJALI SHANKAR NAGRARE VAISHNAVI SUSHIL	Prof. Dilip Budhlani	LED Blinker
6.	NIKOSE MUSKAN MANOJ PAKHALE ARYA VILAS PATIL TANUSHRI RAVI SHEIKH SHAZIYA MAZHAR SHENDE JANHAVI HEMANTKUMAR	Prof. Ekta Meshram	PIR Motor Sensor System
7.	SHETE NISHA RAMKRUSHNA SHIVANKAR VARTIKA DILIP SONULE SANIYA NARESH CHIKHALE PAVAN ANANDRAO CHIVHANE LAUKIK PRAKASH	Prof. Ekta Meshram	Laser Alarm System

8.	DESHMUKH HARSHAL GOPALRAO DHARME SHRAVAN DEVENDRA DHOLANE SUMIT PURUSHOTTAM DHURVE SUJAL RAVINDRA GAJBHIYE SUMIT PARBAT	Prof. Fauziya Ansari	Electric Vehicle Battery Charging Solutions
9.	GUMGAOKAR ROHAN MAHADEO GWALWANSHI ADITYA MAHESHKUMAR JANBANDHU MAHESH ROSHAN KANAMPALLIWAR BHUWAN PRASHANT KHANTE SHATAYU MITESHWAR	Prof. Fauziya Ansari	Make Your Own Energy Meter
10.	MAGAR HARSH RAJU MAHURKAR ANSHUL NARESH MALLICK VIKASH DHARMANANDA MALNAS TANVIR ASLAM MESHARAM RITESH CHUDIRAM	Prof. Sanjivani Barde	Automatic Anchor Light
11.	MESHARAM SUJAL PRAMOD MOZARKAR SURAJ RAVINDRA PAWAR MAYUR JAYSING PAWAR TUSHAR SURESH PRADEEP KUMAR MESHARAM SUJAL PRAMOD MOZARKAR SURAJ RAVINDRA	Prof. Sanjivani Barde	P/N Diode Based Fire Sensor



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**Department of Applied Sciences & Humanities**

**(B. Tech. First Year)**

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**First Semester Section B**



S.No.	Name of Students on Group	Guide Name	Title of Project
1.	AMBARTE YASH ARVIND AMBILKAR ARPITA BALA ARHAM KHAN ATILKAR CHHAKULI DHANRAJ BADWAIK MRUNALI PRAKASH	Prof. Vijay Tayde	
2.	BALLE MANSI MANIRAM BARAPATRE URJITA ABHAY BARDE DHANASHREE SATYAWAN BARIYE SHIVAM RAJNEDRA BAWANE AADESH AVINASH	Prof. Vijay Tayde	
3.	BAWANKAR VAISHNAVI BABAN CHANDEKAR RUCHIKA FALINDRA DAMKE SAMRUDDHI CHANDRASHEKHAR DHAWALE PRANALI DAYARAM DHAWAS SHIVANI RAMKRUSHNA	Prof. Yashraj Chopkar	
4.	JAMBHULKAR VINAYA PURUSHOTTAM KUKDE AKANKSHA CHANDRASHEKHAR LEDANGE ACHAL DHUMPRAKASH MADAVI SUSMITA RUPLAL MANWATKAR CHAITALI RAJU	Prof. Yashraj Chopkar	
5.	MOHOD SHREYA PRASHANT NISHANE TANUSHRI RAMESH PANDEY KHUSHI CHHOTELAL PUDKE VISU RAJU PUNDE SAMINA RAJESH	Prof. Divya Lande	
6.	RANGARI PRASHIKA ROSHAN SOMKUWAR SHRUTI VIJAY TAGDE NEHA DILIP TEKADE ANJALI PRALHAD WAGHMARE TAMANNA VINOD	Prof. Divya Lande	
7.	WARE NIKITA MAROTI BELE SUMIT NARESH BHAIRAM BHUVANKUMAR YOGRAJ BHARADE MADHUR RAJESH CHOUHARI ROHAN BABALU	Prof. Pranali Kharwade	



8.	GHODKI PRANAY PRAMOD GOTMARE CHETAN SUDHAKAR GUDADHE TEJAS RAVINDRA GURATKAR SUJIT RAJENDRA HATWAR VIVEK OMPRAKASH	Prof. Pranali Kharwade	
9.	INDURKAR AYUSH MUKESH KAVITKAR SARVESH MILIND KAWARE ANURAG ANIL LAKHE UDAY JAGDISH LAROKAR TANISHQ DILIP	Prof. Fauziya Ansari	
10.	MANE SHREYASH RAJENDRA MATHANKAR LUCKY RAJU MESHAM KHUSHWANT ARUN NAGOSE ANKIT BARAKU NIKHADE BHAVESH PRAMOD	Prof. Fauziya Ansari	
11.	RAHANGDALE SAGAR BHOJRAM RAUT ATHARVA SURESH RAUT VANSAJ BANDU SAPATE KULDEEP ARUN SATHWANE MONISH VISHNU RAHANGDALE SAGAR BHOJRAM	Prof. Shradhha Dudhankar	
12.	SELOKAR VISHWADEEP PRADEEP SHAMBHARKAR SAURABH DURGADAS SHELKE ASHWIN DNYANESHWAR WANARE CHIRAG YASHWANT WANKHEDE ANURAGH BHAGWAN YELE VINAY SHRAVANKUMAR	Prof. Shamina Siddique	



**Coordinator Of Project**

**ASH GNIET**



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**First Semester Section C**

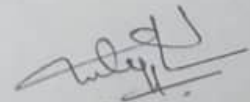
S.No.	Name of Students on Group	Guide Name	Title of Project
1.	AHIRKAR VAISHNAVI SUNIL ARJAPURE MANASI OMPRAKASH ATHILKAR DIPALI BHAGWAN BAGDE JITISHA SHAILENDRA BANSOD SRUSHTI SANJAY	Prof. Shamina Siddique	
2.	BHAVE HUMANSHINI USHIL BHOGE DIYA RAJESH BHURE SHRUTI NATRAJ BODELE ARYA AJAY BODELE HITEESHA SACHIN	Prof. Pranjali Markand	
3.	CHETTIABELJI YASHWANI SHREEWAS CHOPDE PRACHI RAMCHANDRA CHOUDHARI KHUSHABU DINESH CHOUDHARI KHUSHI DHANRAJ CHOUDHARI NISHA WASUDEO	Prof. Pranjali Markand	
4.	CHOURE ASHWINI ARUN DAMBOLE NISHA DASHRATH DHAMGAYE KAJAL RUPESH DHANVIJAY YASHWEE RAJIV DHAWADE GUNJAN SANJAY	Prof. Yashraj Chopkar	
5.	DHOKE NAINIKSHA ANIL DHOLE SONALI BHAVRAO HADKE ISHA HEMANT HEKAD SHREYA DILIP HINGANE PRATIKSHA SHRIKRUSHNAJI	Prof. Divya Lande	
6.	JAGNIT RUCHIKA KUMAR JAGTAP MANASVI BALCHAND KADWE SUWARNA PRAMODRAO KALAMKAR RIYA MANOJ KAMBLE AISHWARYA RAVISH	Prof. Divya Lande	
7.	KAROSIYA APEKSHA AMIT KHIRALE SHWETA RAMESH KOTANGALE BABI NARESH KUSHWAHA NANDINI MANOHAR MACHHALE GITIKA SUBHASH	Prof. Pranali Kharwade	

8.	MAHATO KASHISH MANOJ MALL AAKANSHA SATISH MANWATKAR SHRUTI RAVINDRAJI MARASKOLHE SWETA DHANRAJ MARTHE NISHA ARJUN	Prof. Pranali Kharwade	
9.	MESHAM SAMIKSHA PUNDLIK MESHAM SARGAM DIPAK NAGDIWE USHA JAIDEO NAGPURE GAYATRI NARENDRA NIKHARE YUGESHWARI DEORAM	Prof. Fauziya Ansari	
10.	PATIL DIVYA SHAILENDRA RAMTEKE TANUSHREE SHIVRAJ RANGARI KAJAL JAYPRAKASH RAUT PRIYA ANIL SARODE SAKSHI MANIKRAO YERNE SHRAVANI RAJKUMAR	Prof. Fauziya Ansari	
11.	SHENDE ADITI DILIP SOMKUWAR RUJAL RAJENDRA SONI SHUBHANSHI SRIKRISHNA THOKAL RIYA ARVIND UKEY KOMAL BALIDAS MESHAM SUJAL PRAMOD MOZARKAR SURAJ RAVINDRA	Prof. Shradhha Dudhankar	



**Coordinator Of Project**

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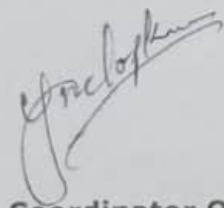
**First Semester Section D**



S.No.	Name of Students on Group	Guide Name	Title of Project
1.	ABDUL ASRAR ABDUL SHAKUR BADHE SANSKAR VIJAYRAO BARSAGADE GAURAV VASUDEV BELSARE GANESH BHAGWAT BHAKRE CHAITANYA RAVISHANKAR	Prof. Shamina Siddique	Alcohol Level Tester Circuit
2.	BHENDARKAR VICKY DEVIDAS BHOYAR OM JAGDISH BHOYAR UJWAL LAXMAN BHUTE VANSH BADAL BOBADE OM SUDHIRRAO	Prof. Pranjali Markand	DIY Nifty Night Lamp
3.	BORIKAR PRATIK DILIP CHANDEKAR PRATHMESH GANESHJI CHAUHAN LOKESH RAMAWADH CHITRIV NILESH YUVRAJ CHITTALWAR DIVESH VILAS	Prof. Pranjali Markand	Electronic Fuse
4.	DAHAKA ALKESH PRASHANT DANGE NIKHIL KISHORRAO DHORAN ARJUN NILESH DHOTRE DHURUV NITIN GAJANKUSHKAR YASH PANJAB	Prof. Yashraj Chopkar	Thermostat for Fridge
5.	GOLAIT HARSHAL MAHENDRA GOUR RISHABH SANJAY HARLE PAVAN RAVINDRA JICHKAR DHANANJAY RATNAKAR KAJE RUSHIKESH SHRIKRUSHNA	Prof. Divya Lande	Light-Activated Switch
6.	KALE PRAJWAL RAMESH KAMBE VEDANT CHANDRAPRAKASH KAMBLE NIKHIL RAMDASJI KARADBHAJANE ANUJ NANDUJI KUMBHALKAR SANGHARSHA RAJESH	Prof. Divya Lande	Digital Dice
7.	MANKAR OM DNYANESHWAR MENDHE ARPIT PRAMOD MOON ATHARV NANDKISHOR MUDE PRATHMESH PRABHAKAR NIKAM HARIOM MURLIDHAR	Prof. Pranali Kharwade	Line Follower Robot



8.	NIKHARE GHANSHYAM OMPRAKASH NIKOSE NISHANT CHHATRAPAL PANTAWANE YADNESH SANGHPAL PARATE MANISH BHOJRAJ PATIL SAMYAK TARACHAND	Prof. Pranali Kharwade	Anti-Theft Alarm Circuit
9.	PAUNIKAR ANIKET UMENDRA RAMTEKE CHINMAY VIJAY RODE SHANTANU GORAKHNATH SHARMA SATVIK RAJENDRA SHEIKH YASIN ABDUL KADAR	Prof. Fauziya Ansari	Solid-state Relay Circuit
10.	SHENDE ATISH GURURAJ SOMKUWAR DHAMMARATNA BABARAO SONTAKKE ADITYA CHANDRASHEKAR SONWANE SUMIT RADHESHYAM THAKRE ARPIT SANJAY	Prof. Fauziya Ansari	Smart Battery Protector Circuit
11.	TIDKE PAWAN NARENDRA TIRPUDE AYUSH PRAVEEN TIWARI NIKHIL VINOD WADURKAR ADITYA VIJAYRAO WAHILE PRADIP GHAGRU WANJARI AYUSH RAJESH YADAV SURAJ KUNJBIHARI	Prof. Shradhha Dudhankar	USB MP3 Player



**Coordinator Of Project**

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**Department of B.E. 1<sup>st</sup> Year**

**Session 2022-23**

**NOTICE**

**09/01/2023**

All the students of B.E 1<sup>st</sup> Year are hereby informed that their seminar of mini project is scheduled on 13/01/2023 at Seminar Hall.

All have to check PPTs of presentation from their respective Guide till 12/01/2022 .

**Time : 10.00 am onwards**

**Project Co-Ordinator**

**HOD, 1<sup>st</sup> Year GNIET**

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Session 2022-23

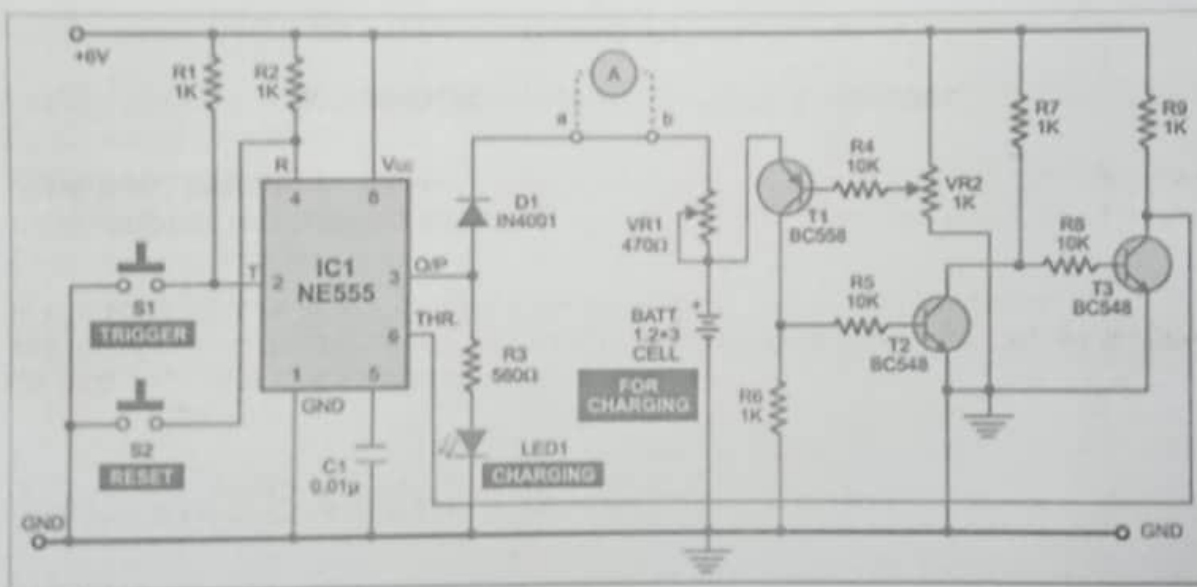
Report on

### Automatic switch-off battery charger

Automatic switch-off battery charger based on a 555 timer IC. This smart charger automatically switches off when your rechargeable batteries reach the full charge.

The circuit comprises a bistable multivibrator wired around timer IC 555. The bistable output is fed to an ammeter (via diode D1) and potmeter VR1 before it goes to three Ni-Cd batteries that are to be charged.

## Automatic Switch-off Battery Charger



### Circuit operation

Normally, the full charge potential of an Ni-Cd cell is 1.2V. Trigger the bistable by pressing switch S1 and adjust potmeter VR1 for 60mA current through the ammeter.

Now remove the ammeter and connect a jumper wire between its points 'a' and 'b.' Connect the positive output terminal of the batteries to the emitter of pnp transistor T1. The base of transistor T1 is held at 2.9V by adjusting potmeter VR2. The output of transistor T1 is inverted twice by npn transistors T2 and T3.

Thus when the batteries are fully charged to  $3 \times 1.2V = 3.6V$ , a voltage higher than this makes transistor T1 to conduct. Transistor T2 also conducts and transistor T3 goes off. The threshold level of timer 555 reaches 6V, which is more than  $\frac{2}{3} \times VCC = \frac{2}{3} \times 6 = 4V$ , to turn off the timer.

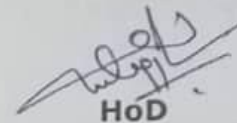
During charging, the threshold level of the timer is held low. The green LED (LED1) glows during charging of the batteries and goes off at the attainment of full charge.

Note that this circuit can be used only for 1.2V, 600mAH Ni-Cd rechargeable batteries that require 60 mA of current for 15 hours to charge fully.



**Project Guide**

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Projectees:-

- 1.AMBULE CHAITANYA PRALHAD
- 2.BAGMARE SWATI RAJU
- 3.BANGARE OJASWI VIJAY
- 4.BANKAR AKSHAY YOGESHWAR
- 5.BANKAR ARPITA UMESH





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**Session 2022-23**

**Report on**

**Automatic Anchor Light**

Federal and international regulations require boats to carry lights between sunset and sunrise and during conditions of restricted visibility. The number and colours of the lights vary with the size of the vessel.

Many commercial vessels carry special lights that identify them to the others. This is important because right of way depends on the types of vessels involved. Tugs and commercial fishing vessels have the right of way over sailboats, which have the right of way over ordinary power vessels.

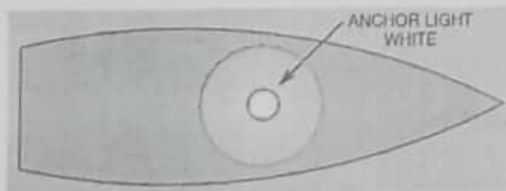


Fig. 1: Anchor light position at the top of a mast

Unique lights are carried by each one. For example, when you are anchored (or tied to a mooring ball), you must display an anchor light that is a white all-around light. It needs to be mounted high so it can be seen from a distance (refer Fig. 1).

However, most of the cruisers do not use a masthead anchor light because the light is too high above the water level and actually makes it difficult to judge the position of the boat from just the anchor light, especially in a pitch-dark anchorage. That is why many people have devised their own forms of anchor lights that they stick lower to the deck on both sides of their boat.

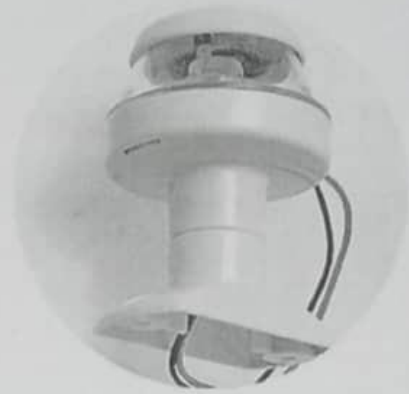


Fig. 2: A typical commercial anchor light

Here is the circuit of a compact yet inexpensive automatic anchor light integrated with an ambient light sensor that turns it on and off automatically. This 12-volt LED light can be used as a traditional masthead anchor light and/or as an optional pretty clever custom-built anchor light. A typical commercial anchor light is shown in Fig.2

## PARTS LIST

### Semiconductors:

IC1	- NE555 timer
D1	- 1N4007 rectifier diode
LED1	- 5mm LED
LED2	- 10mm white LED

### Resistors (all 1/4-watt, $\pm 5\%$ carbon, unless stated otherwise):

R1	- 2.2-kilo-ohm
VR1	- 470-kilo-ohm potmeter
R2	- 220-ohm, 1-watt

### Capacitors:

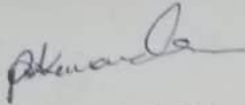
C1, C3	- 100 $\mu$ F, 25V electrolytic
C2	- 0.01 $\mu$ F ceramic disk

### Miscellaneous:

CON1	- 2-pin terminal connector
CON2	- 2-pin connector
RL1	- 12V, 1C/O relay
LDR1	- 5mm light dependent resistor
S1	- On/off switch

### Circuit and working

The circuit described here (refer Fig. 3) lets you control an electromagnetic relay so that it turns on a white LED light when the preset light level is reached and turns it off when a different preset level is reached. The circuit is built around NE555 IC (IC1). The 5mm light dependent resistor (LDR1) in the circuit triggers the 12V electromagnetic relay (RL1) as per the ambient light level. RL1 drives the 10mm white LED light source (LED2). Series resistor (R2) is included to limit the white LED current.

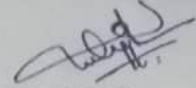


**Project Guide**

**ASH GNIET**

Projectees:-

- 1.MAGAR HARSH RAJU
- 2.MAHURKAR ANSHUL NARESH
- 3.MALLICK VIKASH DHARMANANDA
- 4.MALNAS TANVIR ASLAM
- 5.MESHRAM RITESH CHUDIRAM



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## Department of Applied Sciences & Humanities

Session 2021-22

### NOTICE

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1. Applied Physics-Prof. Sadaf Gauhar / Prof.DivyaLande
2. Energy and Environment-Prof. Pranali Kharwade / Prof. Suharshana Somkuwar
3. Mathematics- Prof. Fouziya Ansari / Prof.Sandeep Bhongade / Prof. Motiram Bannagare
4. Communication Skills-Prof. Shamina Siddique
5. Engineering Graphics-Prof. Vijay Tayde / Prof. Kishor Wagh

**Coordinator of Mini Project**

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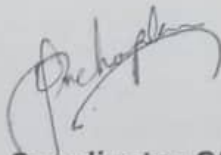
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**First Semester Section A**



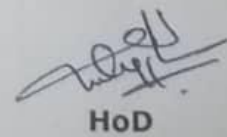
S.No.	Name of Students on Group	Guide Name	Title of Project
1.	Aastha Ravindrakumar Raulkar Achal Gangadhar Kalambe Bipasha Nilamkumar Rangari Bipasha Shailesh Yadav Damini Hiralal Gautam	Prof. Sadaf Gauhar	Dual-Voltage Rechargeable Torch Light
2.	Dipali Gajanan Wagh Dixika Gautam Kothare Harsha Jitendra Bhimte Hiteshi Bhaurao Harode Janhavi Dilip Thakare	Prof. Sadaf Gauhar	GPS on ATmega
3.	Khushi Dharmaraj Kelwade Khushi Mahendra Fiske Khushi Sameer Mukhare Laxmi Amar Meshram Leena Pramod Bobde	Prof. Vijay Tayde	PC-Based GPS
4.	Megha Yogiraj Sontakke Mohini Panjab Rajguru Pooja Mahesh Sakhare Prajakta Namdevrao Deosarkar Pratiksha Raju Unpane	Prof. Vijay Tayde	Low Power Inverter
5.	Prachi Mohan Bahad Prishita Ravi Bagde Purna Rajesh Usare Priyanka Suresh Chavhan Rajju Ramratan Wanve	Prof. Yashraj Chopkar	LPG Leakage Detector
6.	Samiksha Vijay Puramshettiwar Sejal Kailash Waghmare Sheikh Najiya Abdul Kalam Trushna Ramdas Kaware Abhishek Anil Rangari	Prof. Yashraj Chopkar	Geyser Timer Circuit
7.	Abhishek Sunil Washimkar Aman Prakash Borkar Amit Abhay Walekar Anurag Rajesh Lanjewar Anuj Raju Zanzal	Prof. Sandeep Bhongade	Automatic Off Timer For CD Players

8.	Aryan Arvind Sambhe Ayush Khemraj Ramteke Ayush Vinod Verma Ashish Harichand Rathod Ayush Sanjay Bhisare	Prof.Sandeep Bhongade	Doorbell Cum Visitor Indicator
9.	Dhanraj Sahil Raikohad Ganesh Tirupati Sirangi Harsh Sharma Karan Deepak Parate Kamal Rupchand Rane	Prof.Suharshana Somkuwar	Electronic Fuse
10.	Kush Vijay Sahu Love Vijay Sahu Mandar Rajesh Lanjewar Mayur Vijay Chopade Pratham Sudam Wasnik	Prof.Suharshana Somkuwar	Sonar Water Level Meter
11.	Prajwal Arvind Bawankar Prathmesh Shyam Bhingare Ritesh Sunil Wankhade Rohan Umendra Sakhare Rohit Natthuji Kharपुरiya	Prof.Pranali Kharwade	Fire Sensor Circuit
12.	Sagar Dinesh Nagarikar Satish Pancham Gharde Shrikant Jugalkishor Dad Shrikant Namdeo Landge Tanay Kshirsagar Vivek Bhauraj Gautam	Prof.Pranali Kharwade	Thermostat for Fridge



**Coordinator Of Project**

**1<sup>st</sup> Year GNIET**



**HoD**

**1<sup>st</sup> Year GNIET**  
**HOD**

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**Department of Applied Sciences & Humar**  
**(B. Tech. First Year)**

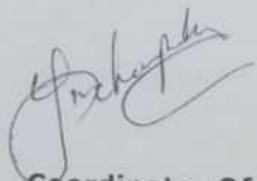


Session: 2021-22

**First Semester Section B**

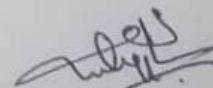
S.No.	Name of Students on Group	Guide Name	Title of Project
1.	Dhillon Jasleen Kaur Rakhbir Singh Divya Anil Bhagat Jyoti Mahagilal Tileshwar Khushi Arvind Damahe Lila Namdeo Rokade	Prof. Pooja Nagpure	Dual-Voltage Rechargeable Torch Light
2.	Madhuri Bandu Kamble Pragati Arun Mahalle Pooja Chandrakant Shriwas Ravishi Rajendra Tembhare Riya Shashikant Bang	Prof. Pooja Nagpure	GPS on ATmega
3.	Rohini Pandhree Zilpe Sayyad Maivish parvin Alim Shrutika Kishor Wadibhasme Sneha Kacharu Jagtap Samiksha Umrao Bhagat	Prof. Pallavi Barekar	PC-Based GPS
4.	Sheikh Feeza Zaki Sheikh Rohma Arshin Mohd Sayeed Shruti Pravin Kolhe Vaishnavi Rajesh Chute Akash Gopal Mohurle	Prof. Pallavi Barekar	Low Power Inverter
5.	Aniket Umashankar Tiwari Bhavesh Sampat Sahu Danish Khan Ahmadullah Khan Dhammadip Nilesh Gondane Ganesh Sureshrao Paunekar	Prof. DivyaLande	LPG Leakage Detector
6.	Gaurav Madhukar Palkar Harshal Gulabrao Nagpure Harshal Nilkanth Thakre Kranti Dhanraj Choudhary Lokesh Khushal Sable	Prof. DivyaLande	Geyser Timer Circuit
7.	Manish Suresh Katre Nikesh Sukhram Khobragade Nikhil Keshorao Bhoskar Nikhil Nareshrao Balanse Om Vijay Uttarwar	Prof. Pranali Kharwade	Automatic Off Timer For CD Players

8.	Pankaj Ajayrao Kale Prajwal Chaitram Fulzele Ritik Vinodkumar Harinkhede Ritik Jitendra Khobragade Ritik Krishna Lohande	Prof. Pranali Kharwade	Doorbell Cum Visitor Indicator
9.	Roshan Dharamlal Turkar Rutwik Sunil Dhamande Sanket Pramod Maske Sayyed Mujahid Sayyed Javed Saifuddin Abid Quereshi	Prof. Motiram Bannagare	Electronic Fuse
10.	Suraj Mate Shashank Shrikurshana Maske Shreeram Gajanan Dad Shreyash Yashwant Rambhad Siddhant Dilip Madavi	Prof. Motiram Bannagare	Sonar Water Level Meter
11.	Suchit Shankarrao Shendre Suraj Dilip Dhote Swapnil Ramesh Surankar Tejas Sadanand Nagrale Tejaskumar Nitin Pohare	Mr. Aditya Parate	Fire Sensor Circuit
12.	Tharun Iragavarapu Vaibhav Krishna Neware Vikas Ramdas Telse Vrushabh Vishwas Virkar Yashwant Ankush Lohande Yash Gulab Charpe	Mr. Aditya Parate	Thermostat for Fridge



**Coordinator Of Project**

**1<sup>st</sup> Year GNIET**



**HoD**

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**Department of Applied Sciences & Humanities**

**Session 2021-22**

**NOTICE**

All the students of ASH Department (B.Tech. 1st year) are hereby informed that the mini-projects of different subject should submit their names to respective subject teachers till 5th January 2022. Student's have to make groups(4 to 5 students)from each section. The teachers and subjects name are as follows:

1. Applied Physics-Prof. Sadaf Gauhar / Prof.DivyaLande
2. Energy and Environment-Prof. Pranali Kharwade / Prof. Suharshana Somkuwar
3. Mathematics- Prof. Fouziya Ansari / Prof.Sandeep Bhongade / Prof. Motiram Bannagare
4. Communication Skills-Prof. Shamina Siddique
5. Engineering Graphics-Prof. Vijay Tayde / Prof. Kishor Wagh

**Coordinator of Mini Project**

**HoD (ASH, GNIET)**

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Department of B.E. 1<sup>st</sup> Year

Session 2021-22

**NOTICE**

**10/01/2022**

All the students of B.E 1<sup>st</sup> Year are hereby informed that their seminar of mini project is scheduled on 14/01/2022 at Seminar Hall.  
All have to check PPTs of presentation from their respective Guide till 13/01/2022 .

**Time : 10.00 am onwards**

**Project Co-Ordinator**

**HOD, 1<sup>st</sup> Year GNIET**

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## Session 2021-22

### Report on

### GPS on ATmega

A global positioning system (GPS) receiver is used to get precise geographical location by receiving information from satellites. It not only gives information about location but also information like time, date, height and speed. It is so useful that most smartphones are embedded with it.

GPS receivers have many applications in aircraft, ships, sea vessels and the like for navigation purposes. Smartphones with maps (like Google Maps) find routes to a specific destination such as a restaurant, hospital or hotel. With the help of a GPS, a target camp can be located and a missile launched to destroy it.



```
$GPRMC, 121040.000,A, 3354.1133,S, 15110.5941,E, 0.40, 349.50, 080211...A*73
```

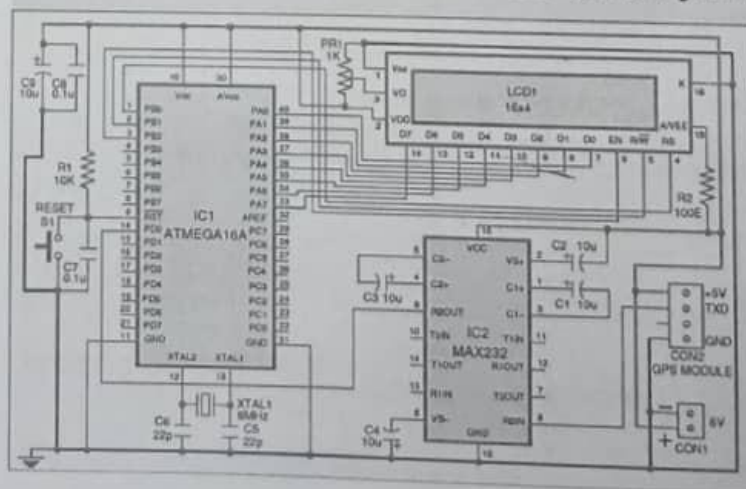
start tag	time(GMT)	latitude	longitude	date
		latitude direction	longitude direction	

A - means data valid

V - means Navigation receiver warning

COG - course over ground

SOG - speed over ground (of GPS antenna)



### AUTHOR'S PROTOTYPE

The GPS receiver module includes an antenna and a built-in processor. The built-in processor calculates the required information from the signals' output serially in form of strings using NMEA (expanded as National Marine Electronics Association) 0183 protocol. These strings are


received serially by the host computer for display or by host processor/controller to take any decision or action.

Fig. 2: GPRMC string format

NEMA protocol includes standard messages given by the GPS receiver. Some standard message outputs from NMEA are GGA, ZDA, VTC, RMC, GSA and GSV. The string starts with \$GPRMC tag and gives time, latitude, longitude, etc.

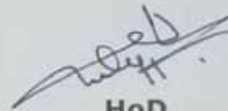
Fig. 3: Circuit diagram of the GPS receiver

The project here demonstrates how to get location (latitude and longitude), time, date, speed and course-angle information using a GPS receiver. It uses 8-bit AVR microcontroller (MCU) ATmega16A (ATMega32 was used by the author) to get data from the GPS receiver and display it on an LCD. All this information is combined in a single string that starts with \$GPRMC tag.



**Project Guide**

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Projectees:-

1. Dipali Gajanan Wagh
2. Dixika Gautam Kothare
3. Harsha Jitendra Bhimte
4. Hiteshi Bhaurao Harode
5. Janhavi Dilip Thakare



Session 2021-22

Report on

### Dual-Voltage Rechargeable Torch Light

The purpose of this circuit is to create a new topology with good power factor maintained at AC voltage input, to provide good efficiency output to the battery and to increase its life. Circuit diagram of the dual-voltage rechargeable torch light is shown in Fig. 1. It is built around two mylar 0.82 $\mu$ F capacitors (C1 and C2), four rectifier diodes 1N4007 (D1 through D4), two 3.7V, 860mAh lithium-ion rechargeable batteries (BATT.1 and BATT.2), two 5mm LEDs (LED1 and LED2), two one-watt LEDs (LED3 and LED4) and a few other components.

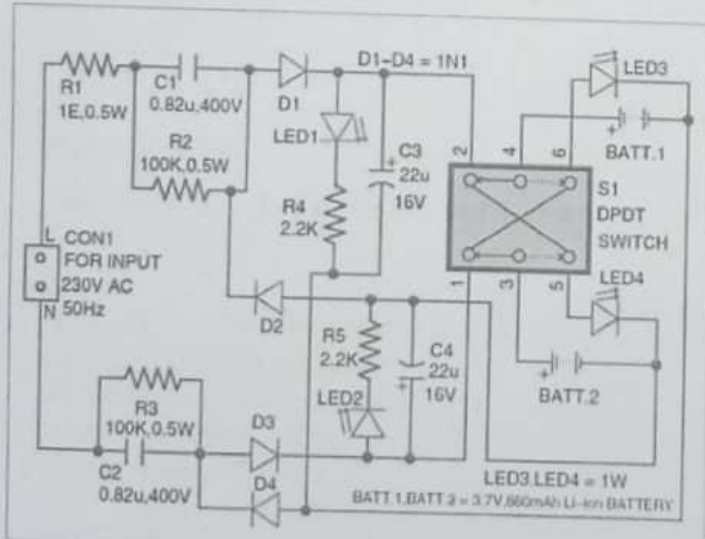


Fig. 1: Circuit diagram of the dual-

voltage rechargeable torch light

Charging of the two batteries is done via the circuit using capacitors C1 and C2 and resistors R2 and R3. Two sets of RC parallel circuits are used to step down 230V AC mains voltage before giving it to the batteries. Diodes D1 and D2 are used for rectification purposes. It is recommended to use 4.7V Zener diode across capacitors C3 and C4.

Positive half cycle of the AC mains charges BATT.1, and negative half cycle charges BATT.2. Capacitors C3 and C4 are filtering elements used to reject ripples and harmonics present in DC voltages.

Both LED3 and LED4 are one-watt white LEDs used for the torch application. For charging the two batteries, keep DPDT switch S1 towards positions 1 and 2, and connect 230V AC input across CON1. The batteries' charging status is indicated by the glowing of LED1 and LED2. After charging the batteries, the circuit can be used for the torch light. For using as a torch, keep S1 towards positions 5 and 6, so the white LEDs (LED3 and LED4) will glow.

### PARTS LIST

*Semiconductors:*

D1-D4 - 1N4007 rectifier diode  
LED1, LED2 - 5mm LED  
LED3, LED4 - 1W LED

*Resistors (all 1/4-watt,  $\pm 5\%$  carbon), unless stated otherwise:*

R1 - 1-ohm, 0.5W  
R2, R3 - 100-kilo-ohm, 0.5W  
R4, R5 - 2.2-kilo-ohm


*Capacitors:*

C1, C2 - 0.82 $\mu$ F, 400V mylar disk  
C3, C4 - 22 $\mu$ F, 16V electrolytic

*Miscellaneous:*

S1 - DPDT switch  
BATT.1, BATT.2 - 3.7V, 860mAh lithium-ion battery  
- 2-pin terminal connector  
- 230V, 50Hz AC mains power supply

*(All these are available from kitsnspares.com)*



**Project Guide**

**ASH GNIET**

Projectees:-

- 1.Aastha Ravindrakumar Raulkar
- 2.Achal Gangadhar Kalambe
- 3.Bipasha Nilamkumar Rangari
- 4.Bipasha Shailesh Yadav
- 5.Damini Hiralal Gautam



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**Department of B.E. 1st Year**


**Session 2019-20**

**NOTICE**

All the students of B.E. 1<sup>st</sup> Year Department are hereby informed that the mini-projects title of different subject should submit their names to respective subject teachers till 7th October 2019. Student's have to make groups(4 to 5 students) from each section. The teachers and subjects name are as follows:

1. Applied Physics- Prof. Vaishali Patil
2. Energy and Environment- Prof. Ekta Meshram
3. Mathematics- Prof. Fouziya Ansari
4. Communication Skills- Prof. Sanchal Tarode
5. Engineering Graphics- Prof. Kishor Wagh

  
**Coordinator of Mini Project**

  
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Dahegaon, Kalmeshwar Road, Nagpur-441501

**Department of Applied Sciences & Humanities**

**(B. Tech. First Year)**

Session: 2019-20



S.No.	Name of Students on Group	Guide Name	Title of Project
1.	ACHAL ANANDRAO VIGHNE ACHAL RUPCHAND WADBUDHE AISHWARYA RAJESH SADELE AYUSHI VINOD MESHRAM BHAWANA VINOD IKHAR	Prof. Kishor Wagh	Mini Solar Water Heater for Rooftop
2.	DARSHANA SUBHASHRAO NASARE DEVYANI CHANDRASHEKHAR DHOLE GAYATRI GAJANAN GAWANDE KARISHMA NIRMAL MANEKAR KARISHMA WASUDEO GHONGE	Prof. Kishor Wagh	Automatic Plant Watering System
3.	KETKI SANJAYRAO WASULE KOMAL CHANDRASHEKHAR HERODE MAYURI TIKARAM SONKUSARE MOHINI DHANRAJ PATIL NIVRUTTI DINESH PATLE (R/A)	Prof. Saurav Suman	WYSIWYG HTML Editor.
4.	NOUSHEEN FARHAT YOUSUF SHAH PALLAVI MANOHAR SATAO POURNIMA MORESHWAR KATWE PRANALI VINAYAKRAO SAWWALAKHE (R/A) PRIYANKA DILIP MANMODE	Prof. Saurav Suman	Web Scraper.
5.	PUNAM NAGO BUDHE RUPALI GANESH DEKATE RUPALI RAMU HEDAU SAKSHI SHALIKRAM SAWARKAR SAMPADA RAVINDRA BHOSALE	Prof. Vaishali Patil	Simple Chat Program.
6.	SEJAL GAUTAMRAO BHAGAT SILKY SANTOSH PANDEY SUSHMI RAJESH KANOJIYA TRUPTI DILIRAM CHOURAGADE VAISHNAVI DILIP CHANNE	Prof. Ekta Meshram	Quiz Website.
7.	VAISHNAVI GAJANAN BHALERAO VAISHNAVI RAJU MADANKAR VAISHNAVI RAMESH HIWASE ABHISHEK PRAKASH NIKAM ABHISHEK SUDAM SOLANKE	Prof. Ekta Meshram	Stack Overflow Clone.



8.	ADITYA DAYARAM WAGHMARE ANIKET MADHUKAR THOTE ANUJ BHOJLAL THAKUR ARYAN MUKESH DONGRE ASHISH ARUN GEDAM	Prof. Fauziya Ansari	Online Voting System.
9.	ASHWAJIT ARJUNRAO CHAHANDE ATHARVA PRAKASH WANKAR ATHARVA SANJAYRAO DONDAL DHAMMANAND PRABHUDAS MOHOD DURGESH AKNATH BHAGWAT	Prof. Fauziya Ansari	Expense Tracker App/ Website.
10.	GAJANAN SANTOSH GAHULE GAURAV SHESHRAO DAKHARE HARSHAL RAJU PATIL KARTIKEYASINGH THAKUR KRUNAL VINAYAK DEOTALE	Prof. Sanjivani Barde	A Chatbot.
11.	LILADHAR TULARAM ITOLE MAHESH DILIP MUSALE MOHIT RAJU AGRAWAL NIRBHAY DADARAM BHOYAR PRATEEK SADANAND BHELAVE PRAVIN JUNGILAL UIKE PURVENDRA KASDEKAR	Prof. Sanjivani Barde	WYSIWYG HTML Editor.
12.	RAVINDRA RAMESH JAWARKAR RITIK RAJU KAMBLE ROHIT MAROTI CHAWARE ROHIT RAMSINGH THAKRE SAGAR PRABHAKAR NIMKAR SARVAN SHESHNARAYAN GOUR SAYYAD SHARUKHA SALAR	Prof. Dilip Budhlani	Web Scraper.
13.	SWAPNIL PADMAKAR KANIRE TARUN BALLURAM HINGWE VAIBHAV DILIP ITANKAR YUGAL NARAYAN RAUT KRUSHNA ARUNRAO GANJARE VAIBHAV PARASRAM UGE SHUBHAM MATHURKAR	Prof. Dilip Budhlani	Magnetic Train



**Coordinator Of Project**

**1<sup>st</sup> Year GNIET**



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**Department of B.E. 1<sup>st</sup> Year  
Session 2019-20**

**NOTICE**

**11/10/2019**

All the students of B.E 1<sup>st</sup> Year are hereby informed that their seminar of mini project is scheduled on 14/10/2019 at Seminar Hall.  
All have to check PPTs of presentation from their respective Guide till 13/10/2019 .

**Time : 10.00 am onwards**

**Project Co-Ordinator**

**HOD, 1<sup>st</sup> Year GNIET**

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 Website: www.gniit.ac.in E-mail: gniitnagpur@gmail.com



**Session 2019-20**

**Report on**

**Mini 20 Liter Solar Water Heater for Rooftop**

Water heaters consume a large amounts of electricity for heating water. Traditional heaters require heating coils to heat up water using a minimum of 2000Watt for the process. Well when we use solar energy for water heating it requires around 30 to 50 watt of power saving more a lot of energy.

We here develop a more efficient solar water heater to heat up water at a faster rate using efficient coiling along with heat trapping and reflecting mirrors. The water heater can more efficiently heat up water at a faster pace than traditional solar water heaters.

The system makes use of steel pipes coiled together for passing water through them. The pipes are heated by solar rays directly falling on them. We additionally use a metal plate behind the pipes with a black paint to absorb the rays passing through in between pipes. Over this we use 2 additional reflective sheets to gather and reflect additional solar rays over the pipes. This system heats up the pipes thus heating up the water passing.

We now have a water tank for water storage. The system makes use of a Pump motor to pump water through the pipes. It is a low power motor which needs external power supply of up to 50 Watts. The motor drives water from the pipes through the heating pipes and right back into the tank thus heating the water continuously.

The water in the tank can then be used through a third outlet for usage. Thus the system provides a highly efficient solar water heater that saves over 99% energy as well as serves warm water instantly. Approximate Dimensions: 550 x 440 x 400 mm (L x W x H)

**Components**

Steel Pipes \*Back Sheet \*Water Tank \*Pipe Connectors \*Pipe Fittings \* Water \* \*Pump \*Reflector Sheets \*Hinges Supporting Rod \*Pipes Mounts and Joints Base Frame \*Supporting Frame \*Screws and Fittings.

**Project Guide**

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**Projectees:-**

- 1.ACHAL ANANDRAO VIGHNE
- 2.ACHAL RUPCHAND WADBUDHE
- 3.AISHWARYA RAJESH SADELE



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Website : www.gniet.ac.in E-mail : gnietnagpur@gmail.com



**Session 2019-20**

**Report on**

**Automatic Plant Watering System**

**Integration of Sensors and Actuators**

In this project, we'll explore the creation of an automatic plant watering system. It involves sensors to detect soil moisture and actuators to control water flow.

**Components Needed**

Soil moisture sensors, a water pump, and a microcontroller are essential components. The microcontroller processes sensor data and controls the water pump to ensure the plants receive the right amount of water.

**Enhancing Efficiency in Agriculture**

Automating the watering process not only saves time but also optimizes water usage, promoting efficient agricultural practices. This project is especially beneficial for individuals with busy schedules or large garden.

**Project Guide**

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**Projectees:-**

1. DARSHANA SUBHASHRAO NASARE
2. DEVYANI CHANDRASHEKHAR DHOLE
3. GAYATRI GAJANAN GAWANDE
4. KARISHMA NIRMAL MANEKAR
5. KARISHMA WASUDEO GHONGE



Session 2019-20

Report on

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\*Supporting Frame \*Screws and Fittings.



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ASH GNIET

Projectees:-

- 1.ACHAL ANANDRAO VIGHNE
- 2.ACHAL RUPCHAND WADBUDHE
- 3.AISHWARYA RAJESH SADELE
- 4.AYUSHI VINOD MESHAM
- 5.BHAWANA VINOD IKHAR



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Session 2019-20

Report on

### Automatic Plant Watering System

#### Integration of Sensors and Actuators

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GNIET Nagpur

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2. DEVYANI CHANDRASHEKHAR DHOLE
3. GAYATRI GAJANAN GAWANDE
4. KARISHMA NIRMAL MANEKAR
5. KARISHMA WASUDEO GHONGE



**Department of B.E. 1<sup>st</sup> Year**

**Session 2018-19**

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All the students of B.E. 1<sup>st</sup> Year Department are hereby informed that the mini-projects of different subject should submit their names to respective subject teachers till 5th October 2018. Student's have to make groups(4 to 5 students)from each section. The teachers and subjects name are as follows:

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2. Energy and Environment- Prof. Ekta Meshram
3. Mathematics- Prof. Fouziya Ansari
4. Communication Skills- Prof. Kanchan Gopal
5. Engineering Graphics- Prof. Kishor Wagh

**Coordinator of Mini Project**

**HoD (1<sup>st</sup> Year, GNIET)**

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**GURU NANAK INSTITUTE OF ENGINEERING & TECHNOLOGY**  
Dahegaon, Kalmeshwar Road, Nagpur-441501  
**Department of B. E. First Year**




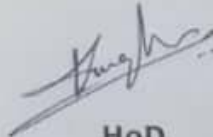
**Session: 2018-19**

S.No.	Name of Students on Group	Guide Name	Title of Project
1.	ABDUL ASRAR ABDUL SHAKUR BADHE SANSKAR VIJAYRAO BARSAGADE GAURAV VASUDEV BELSARE GANESH BHAGWAT BHAKRE CHAITANYA RAVISHANKAR	Prof. Kishor Wagh	Smart Helmet for Industrial Workers
2.	BHENDARKAR VICKY DEVIDAS BHOYAR OM JAGDISH BHOYAR UJWAL LAXMAN BHUTE VANSH BADAL BOBADE OM SUDHIRRAO	Prof. Kishor Wagh	Drain Waste Water Cleaner
3.	BORIKAR PRATIK DILIP CHANDEKAR PRATHMESH GANESHJI CHAUHAN LOKESH RAMAWADH CHITRIV NILESH YUVRAJ CHITTALWAR DIVESH VILAS	Prof. Saurav Suman	Water level Indicator
4.	DAHAKA ALKESH PRASHANT DANGE NIKHIL KISHRRAO DHORAN ARJUN NILESH DHOTRE DHRUV NITIN GAJANKUSHKAR YASH PANJAB	Prof. Vaishali Patil	Remote Tester
5.	GOLAIT HARSHAL MAHENDRA GOUR RISHABH SANJAY HARLE PAVAN RAVINDRA JICHKAR DHANANJAY RATNAKAR KAJE RUSHIKESH SHRIKRUSHNA	Prof. Dilip Budhlani	LED Blinker
6.	KALE PRAJWAL RAMESH KAMBE VEDANT CHANDRAPRAKASH KAMBLE NIKHIL RAMDASJI KARADBHAJANE ANUJ NANDUJI KUMBHALKAR SANGHARSHA RAJESH	Prof. Ekta Meshram	PIR Motor Sensor System
7.	MANKAR OM DNYANESHWAR MENDHE ARPIT PRAMOD MOON ATHARV NANDKISHOR MUDE PRATHMESH PRABHAKAR NIKAM HARIOM MURLIDHAR	Prof. Ekta Meshram	Determine Rate of Fermentation of Various fruit Juices



8.	NIKHARE GHANSHYAM OMPRAKASH NIKOSE NISHANT CHHATRAPAL PANTAWANE YADNESH SANGHPAL PARATE MANISH BHOJRAJ PATIL SAMYAK TARACHAND	Prof. Fauziya Ansari	Electric Vehicle Battery Charging Solutions
9.	PAUNIKAR ANIKET UMENDRA RAMTEKE CHINMAY VIJAY RODE SHANTANU GORAKHNATH SHARMA SATVIK RAJENDRA SHEIKH YASIN ABDUL KADAR	Prof. Fauziya Ansari	Make Your Own Energy Meter
10.	SHENDE ATISH GURURAJ SOMKUWAR DHAMMARATNA BABARAO SONTAKKE ADITYA CHANDRASHEKAR SONWANE SUMIT RADHESHYAM THAKRE ARPIT SANJAY	Prof. Sanjivani Barde	Automatic Anchor Light
11.	TIDKE PAWAN NARENDRA TIRPUDE AYUSH PRAVEEN TIWARI NIKHIL VINOD WADURKAR ADITYA VIJAYRAO WAHILE PRADIP GHAGRU WANJARI AYUSH RAJESH YADAV SURAJ KUNJBIHARI	Prof. Sanjivani Barde	P/N Diode Based Fire Sensor

  
Coordinator Of Project  
1<sup>st</sup> Year GNIET

  
HoD  
HOD  
1<sup>st</sup> Year GNIET  
Department of Applied  
Science & Humanities  
GNIET Nagpur



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APPROVED BY AICTE, DTE & AFFILIATED TO RTM NAGPUR UNIVERSITY, NAGPUR

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**Department of B.E. 1<sup>st</sup> Year**

**Session 2018-19**

**NOTICE**

**11/10/2018**

All the students of B.E 1<sup>st</sup> Year are hereby informed that their seminar of mini project is scheduled on 15/10/2018 at Seminar Hall.  
All have to check PPTs of presentation from their respective Guide till 12/10/2018 .

**Time : 10.00 am onwards**

**Project Co-Ordinator**

**HOD, 1<sup>st</sup> Year GNIET**

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**Session 2018-19**

**Report on**

**Smart Helmet for Industrial Workers**

**Ensuring Safety in Industrial Settings**

Prioritize industrial safety with a smart helmet for workers. This project integrates technology to enhance safety measures in hazardous environments.

**Technology Integrated into the Helmet**

Features include sensors for detecting environmental hazards, communication systems, and real-time monitoring. The helmet provides instant alerts and assistance to workers.

**Preventive Measures for Accidents**

By incorporating smart technology, this project aims to reduce the risk of accidents in industrial settings. It showcases the potential of wearable tech in ensuring worker safety.

**Conclusion**

In conclusion, these mini project ideas for mechanical engineering not only offer hands-on learning experiences but also address real-world challenges. From sustainable energy solutions to advancements in automation, each project opens doors to innovation and creativity within the field. Aspiring engineers can choose projects based on their interests, allowing for a personalized and enriching learning journey.

**Project Guide**

**ASH GNIET**

**HoD**

**ASH GNIET**

**HOD**

**Department of Applied  
Science & Humanities  
GNIET Nagpur**

**Projectees:-**

- 1.ABDUL ASRAR ABDUL SHAKUR
- 2.BADHE SANSKAR VIJAYRAO
- 3.BARSAGADE GAURAV VASUDEV
- 4.BELSARE GANESH BHAGWAT
- 5.BHAKRE CHAITANYA RAVISHANKAR

## Session 2018-19

### Report on

## Drain Waste Water Cleaner

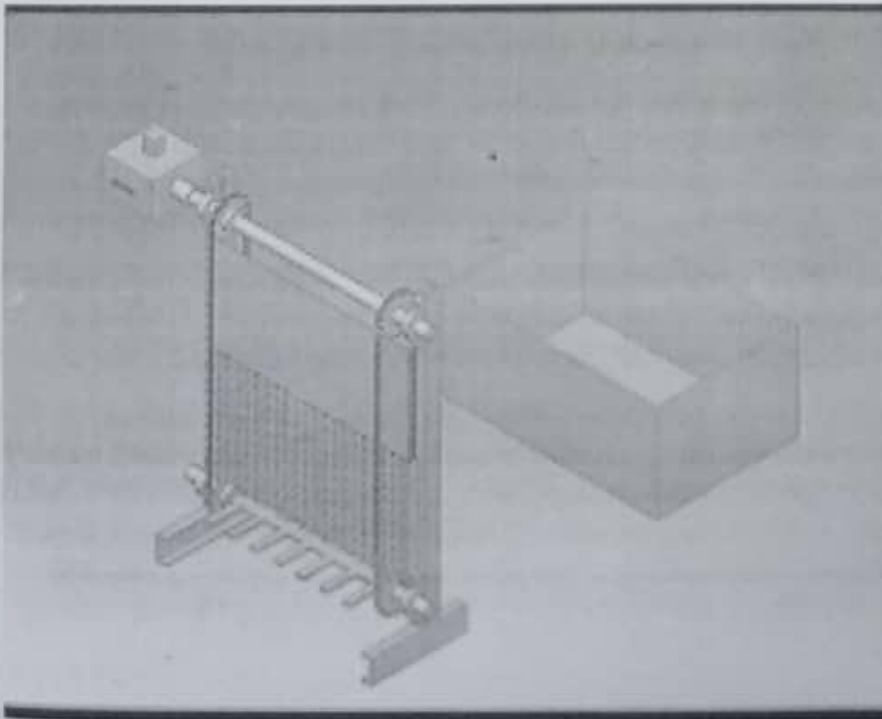
Wastewater is defined as the flow of used water from homes, businesses, industries, commercial activities and institutions which are subjected to the treatment plants by a carefully designed and engineered network of pipes. This type of wastewater is classified and defined according to its sources of origin. Typically 200 to 500 litres of wastewater are generated for each person connected to the system every day.

Wastewater is defined as the flow of used water from homes, businesses, industries, commercial activities and institutions which are subjected to the treatment plants by a carefully designed and engineered network of pipes. There are large no. of machines used for removing out the wastes from drains.

Every dynamic spring is subject to these constraints where variation of forces and alignment takes place. To find a solution for the problem of water logging due to plastic, thermocol, metal, etc. To treat problems like malaria, typhoid, etc. caused due to water accumulation.

The main objective of this project to minimize or overcome the problem which can be faced in manual machine. Also increased the dumping rate of waste. And help to operator do easily work. The purpose of selecting drain waste water cleaner machine are as follows -

- Simplicity of Design and Control.
- This type of machine are easy to operate and less time consuming.





- Evaluate the effectiveness of alternative drainage design and operational practices, to reduce nitrate-N losses from drained agricultural lands
- Assess the impact of various soil and crop management practices on reducing nitrate-N loadings to subsurface drains.
- Assess the need for further research in other aspects of water quality from drained agricultural lands, including the emerging issues of pathogens and phosphorus from manure applications.
- Develop drainage guides and other extension materials, and work with state and federal action agencies, to assist in implementation of improved design and management practices for subsurface drainage systems

The drain waste water cleaner machine is designed and manufactured by using gear changing and shaft coupling principle. It consist mainly DC geared motor, shafts, waste removal plates, dust bin, bearings, sprocket and chains. Construction materials are easily available, creates employment( construction and maintainence),simple to construct.



**Project Guide**

**ASH GNIET**

**Projectees:-**

1. BHENDARKAR VICKY DEVIDAS
2. BHOYAR OM JAGDISH
3. BHOYAR UJWAL LAXMAN
4. BHUTE VANSI BADAL
5. BOBADE OM SUDHIRRAO



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