Sandip Foundation's

Sandip Institute of Engineering & Management,
Mahiravani, Trimbak Road, Nashik

असतो मा सद्गमय ।
तमसो मा ज्योतिर्गमय ।।

SANDIP
FOUNDATION

SIEM

E-BULLETIN

APRIL 2018
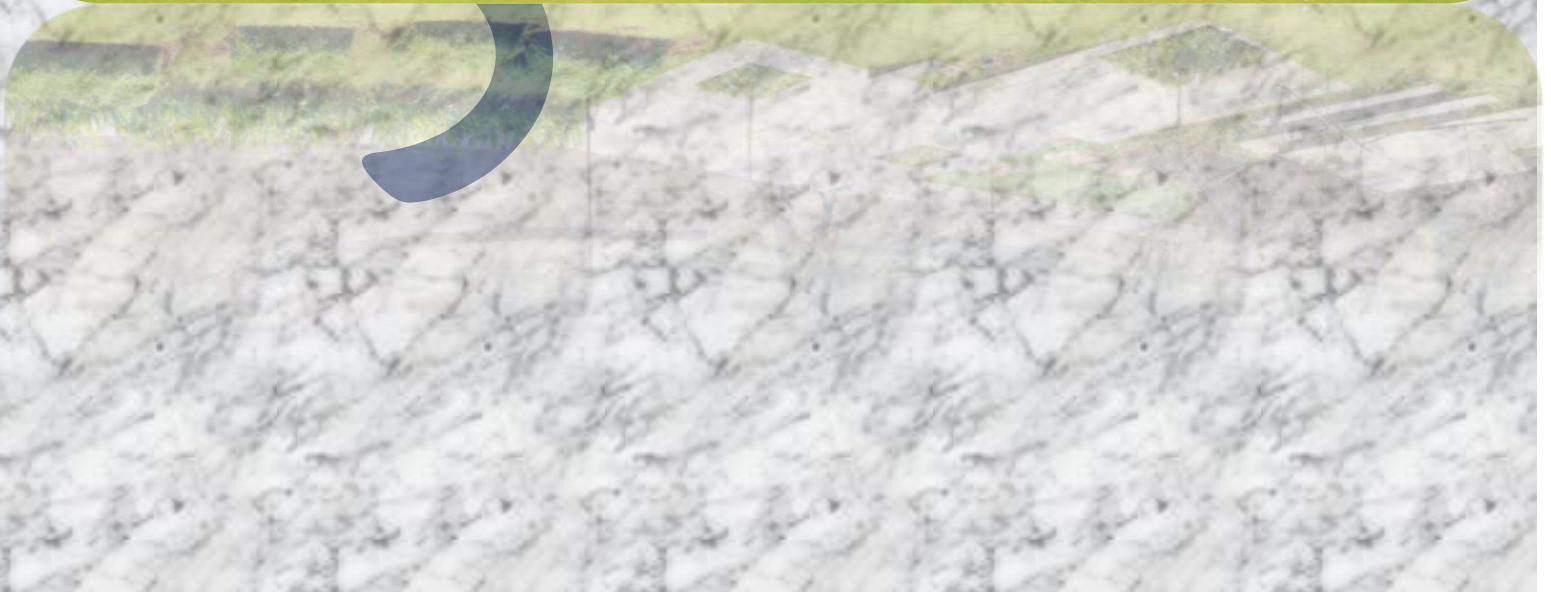
PRINCIPAL'S MESSAGE

On behalf of the Management, Faculty and Staff of SIEM, it is an honor to welcome you to this prestigious institution.

We at SIEM are strongly committed to provide quality technical education to our students. Now what does quality consists of? Is it mere state-of-the-art laboratories and a well-furnished classroom? Or does it also involve the proactive participation of teachers and students alike? These are some of the questions we asked ourselves before embarking on this journey. In the ensuing years, our Faculty took up this task seriously, of trying to understand what international quality means and of taking the effort to make this a reality. Of course, we laid emphasis on educational infrastructure with laboratories, libraries and other resources for teaching. Nevertheless, the core of our efforts centered on applying innovative methods to our teaching-learning and evaluation, in spite of the large numbers we deal with. If our students do not pick up the skills of analysis and critical thinking, all the memorization and reproduction they may achieve in this Institution will be in vain in the global culture and economy. It is our belief that every student has an unending storehouse of talent and when nurtured properly, we can help bring out the best in that individual.

The approach of the Institution is holistic. It has called for learning methods that are more demanding on both the professor and the student. It has led to a renewed emphasis on research for faculty and on initiating a taste for research among students. The monitoring of this process by the Heads of the Departments and by the Academic Administrators, in order to encourage good practices and to evaluate their effectiveness, gives hope of a renewal of academic culture on campus.

I want to congratulate you and wish you the best on this journey. It is our assurance that at SIEM you will emerge as tomorrow's leader, today.

Dr.R.V.Kshirsagar
Principal

Student Achievement

➢ **Sagar Padol, Mangesh Vidhate**

1. First Prize at the event "BEG BORROW STEAL" at STHAPTYA 2018 at NDMVP, Nashik dated 19/03/2018

2. Second Prize in event "TOWER MAKING" at STHAPTYA 2018 at NDMVP, Nashik dated 19/03/2018

➢ **Nilesh Gamane, Devidas Mahajan**

1. Second Prize at the event "CENEX PROJECT COMPETITION" at AAKAAR 2018 at IIT Powai dated 18/03/2018

➤ **Adesh Karpe**

1. First Prize at the event "QUIZ COMPETITION" at KSHITIJ 2018 at NDMVP, Nashik dated 18/03/2018

> **Adesh Karpe**

1. First Prize at the event "QUIZ COMPETITION" at MECHANZA 2018 at NDMVP, Nashik dated 19/03/2018

> **Adesh Karpe**

1. First Prize at the event "QUIZ COMPETITION" at MECHANZA 2018 at NDMVP, Nashik dated 19/03/2018

➢ **Adesh Karpe**

1. Second Prize at the event "QUIZ COMPETITION" at Force 2018 at KKWIEER, Nashik dated 20/03/2018

2. Second Prize at the event "QUIZ COMPETITION" at MECHEAVEN 2018 at KKWIEER, Nashik dated 22/03/2018

3. Second Prize at the event "AUCTIONEERS COMPETITION" at MECHEAVEN 2018 at KKWIEER, Nashik dated 23/03/2018
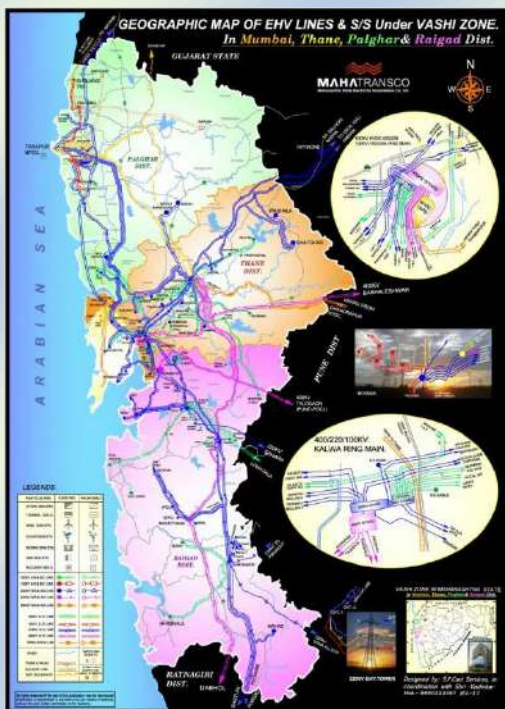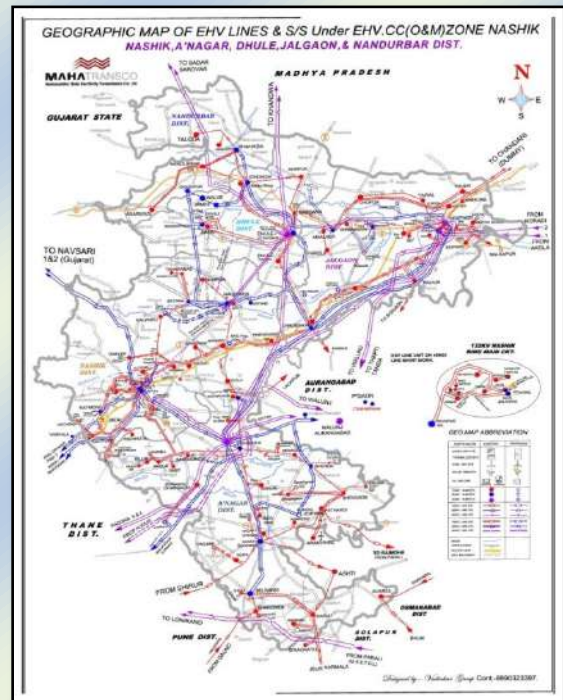
Student Achievement

Harshal Akole (TE Electrical) and his tutor **Prof. Pallavi Jadhav**, Asst. Professor, Electrical Engineering presented paper at IEEE conference I2CT held at Pune on the topic of renewable energy system titled FLOATING SOLAR PLANT

STUDENTS SECTION -

*It gives me immense pleasure to introduce my work in the field of Designing, Drafting and Display work solutions for various companies and firms from all over Maharashtra State. My proprietor firm **RV Technical Services** is working with Maharashtra State Electricity Transmission Company Ltd. since last few years. This includes work in the field of designing, drafting and displaying of various electrical network diagrams including Electrical plan layout, Single line diagrams, section views of E.H.V. Substations. We provide Drafting of Geographical route-wise transmission network diagrams of power through E.H.V. Lines and Substations. We have also provided services in Drafting of all types of drawings including Civil structures, Earthing Drawings, Cable trench, Control Room design, etc. which are essentially required for the purpose of E.H.V. Substation erection.*

Thus, we successfully completed the Geographical route-wise network diagram for M.S.E.T.C.L. of Nashik Zone and Vashi Zone which includes 5 + 3 = 8 districts in Maharashtra state. This took us almost a period of 8-9 months to complete this work undertaken. This whole work was appreciated by the Hon. Chief Managing Director along with other head employees of M.S.E.T.C.L. at its Head office in BKC, Mumbai. Promoting to this, we have also received permission for the preparation of Zone wise Geographical Map showing EHV Lines and substations for whole Maharashtra state following the Western Region of Grid.

*-   **By Rahul Vadinkar, TE-A SIEM Electrical***

Sandip Institute of Engineering & Management Nasik

A National Level Technical Festival Aayaam 2018

Event Report

Two Days National Level Technical Festival "Aayaam 2018" during **13 – 14 March 2018** that explores Technology, Emerging Trends and Creativity. From last seven years Sandip Foundation's National Level Technical Festival Aayaam has gone from strength to strength, climbing the ladder of success and it has become a brand in the making. It provides an opportunity to create mutually beneficial association between Polytechnic and Engineering institutions

Events under SIEM

SIEM Coordinator: - Prof. Sharmila. M

1) Implonix (E& TC Department)   Coordinator:- Prof. Bharat Deore

2) NFS-Computer gaming(First year)   Coordinator:- Dr. Tejendra A. Rajput

3) Box Cricket (Electrical Department)   Coordinator:- Prof. D.V. Malkhede

4) Project Competition (Civil Department)   Coordinator:- Prof. Shantanu Pande

5) Project Competition (Mechanical Department)   Coordinator:- Prof. Sachin Chede

6) Blind C(Computer Department)   Coordinator:- Prof. Avinash Taskar

Event wise dates & participation

1) Implonix (13/3/18)   :- 07 Groups ,20 participants

2) NFS-Computer gaming(13/3/18 & 14/3/18)   :- 39 participants

3) Box Cricket   (13/3/18 & 14/3/18)   :- 19 team, 133 participants

4) Project Competition (Civil) (14/3/18)   :- 11 Groups, 44 participants

5) Project Competition (Mechanical) (14/3/18) :- 37 Groups, 145 Participants

6) Blind C (13/3/18)   :- 16 participants

Winners of each event:-

Event: - Implonix

First prize

1) Bhushan A. Mahajan, MET BKC Nasik

2) Sarang Joshi, MET BKC Nasik

Second prize

1) Kunal B. Jadhav, SITRC Nasik
2) Lokesh D. Ingale, SITRC Nasik
3) **Rupesh P. Chaudhari, SITRC Nasik**

Event: - NFS-Computer gaming

First prize   : - Krushna Patil ,K. K. Wagh College of Engineering
Second prize: - Digambar Shinde , K. K. Wagh College of Engineering

Event: - Box Cricket

First prize   : - Sagar Bendkule&e.l. from Gokhale C.O.E. Nashik
Second prize: - Kiran Dhawale&e.l. from Mahavir C.O.E. Nashik

Event: - Project Competition (Civil)
Winner   : - SNJB College of Engineering, Chandwad
Topic of winner Project: Design and Analysis of sliding segmental Retaining Wall.

Event: - Project Competition (Mechanical)

Winner   : - SNJB College of Engineering, Chandwad
Topic of winner Project: Versatile Sugarcane Planter
Event: - Blind C

First prize   : -AMAN SHARMA, SITRC

Second prize: -MAYUR PATIL, SIEM

Photograph of **Inauguration**

"Photograph of **Implonix**"

"Photograph of **NFS**"

"Photograph of **Box cricket**"

"Photograph of **Blind C**"

"Photograph of **Project Competition**"

EXPERT LECTURE OF INTELLECTUAL PROPERTY LAW

Date: 31/03/2018

In context to the product based learning and the introduction to patents department of computer engineering has organized the Expert Lecture from *Prof. Sushant Pawar* for Second year Computer Engineering students. The details are given below:

Purpose: To bridge the gap between education & research and looking for product based learning. The session contains:

Introduction to copyrights

Introduction to trade sheets

Expected audience: SE Computer Engineering Students

Report on
Workshop on Internet of Things

1. Event Title: Internet of Things
2. Event Date: 15/3/2018 to 17/3/2018
3. Event Conduction Duration: 03 Days
4. Event Venue: BE Computer , SIEM.
5. Event Resource Person Details:

> **Dr. R. S. Tiwari ,** Cognifront Tehcnolgies,Nashik
>
> **Mr.Ganesh Gaikwad,** Cognifront Technologies,Nashik

6. Name of Event Coordinator : Prof. Avinash C Taskar

7. Expected Audience: Students of S.E

8. Number of Students: 47

a. Event Objectives & Outcomes:

- This program aims at providing an opportunity for participants to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society.

- This program serves as a platform for research scholars, faculty, engineers and students to interact on cutting edge technologies in IoT.

- The Internet of Things (IoT) has evolved from the convergence of wireless technologies, micro electromechanical systems (MEMS) and the Internet. By connecting "things" in the real world such as cars, buildings, and industrial equipment, IoT promises to revolutionize how we live and work. The IoT market is likely to experience around 28% year on year growth, rising to 5.4 billion connections across the globe by 2020, counting cellular, fixed line , satellite and short range wireless connections, up from 1.2 billion devices in the year 2014.

Outcomes: Name of Projects:
1. Safety and Panic Switch for Women
2. Smart Electricity Grid and eBill generation using Cloud
3. Adaptive Street Lighting System
4. MP3 Player and Public Announcement System
5. Patient Health Monitoring System using Body Area Network
6. Home Automation
7. Electronic Leveling Meter
8. Vehicle Accident Detection System

Technical Fest
Mechsummit 2018

1. Event Title: - "MECHSUMMIT 2K18"

2. Event Date: - 23rd & 24 th Feb 2018

3. Event Conduction Duration: - 10.00 am to 5.00pm

4. Event Venue: - Civil Seminar hall, SIEM.

5. Event Resource Person: Mr. Milind Tare (Consultant)

6. Name of Event Coordinator: - Prof. P.M. Sutar

7. Event Objective & Outcome: -

Mechanical Engineering Students Association (MESA) of SIEM has organized a National Level Technical event "MECHSUMMIT 2K18" for the second consecutive year after the good response we received for last year's program. The event comprises of various competitions like Paper Presentation, Assembly Hunt, Mock Interview, Robo Race, Cad War, Technical Quiz also various Non-Technical Events like Dancing Competition, Cannon Fight, Egg Drop, Table tennis, Click the Campus and Box Cricket. Students from various institutes have participated in these completions across Maharashtra. Around 600 students from various institutes have participated this year.

The aim of this event was to enhance the interpersonal skills, management skills also overall improvements of the students. The event was held on 23rd and 24th of February 2018.The inaugural function was held a civil seminar hall for which Mr. Milind Tare a well-known consultant were present. He guided students about how to become a successful entrepreneur also he advised students to acquire all kind of skill to be competitive in today's world. Hon.Principal Prof. Dr. R. V. Kshirsagar, HOD Mechanical Prof. A. S. Dube, Dean Admin Prof. N. L. Bhirud were also present for the ceremony.

For Mock interview Mr. Prashant kale (Human resource Manager of techno shell pvt ltd) and Mr. Maharaj Bundel (Human resource Manager of RTF pvt ltd) were invited as judge.

Outcome:- The event was successful and students were provided a platform once again to display their skills .

TECHNICAL FESTIVAL

TECHNOPHILIA 2K18

1. Event Date: 24 Feb 2018

2. Event Venue: Department of E&TC SIEM

3. Event Resource/guest Person Details:

Mrs. Apurva Jakhadi
Director Shree Engineers, Ambad MIDC, Nashik

Mr. Gajendra Chopde
Director, SP Electronics, Nashik

6. Name of Event Coordinator: Prof. P. P. Chaudhari
Prof. S. R. Kurkute

7. Expected Audience: Students from different diploma and degree colleges

8. Number of Participants: 300

9. Event Objectives & Outcomes:

Objectives:

We, the department of E&TC Engineering, organized technical event TECHNOPHILIA 2K18 with different competition such as paper presentation & poster presentation, Box Cricket for diploma and degree students. The purpose of organizing this event is to motivate the students for presenting the contents and scope of work effectively and to develop illustrative skills, graphic skills & creativity in students.

Outcome:

1. Around 300 Students from of different colleges visited SF campus.
2. Technical Paper Presented By students of diploma
3. Student participated in sports events.
4. Students were happy with the conduction of event and requested for rearranging such events every year.

Felicitation of guests

Introduction of event by Dr. Dipak. P. Patil & Principal Dr. R. V. Kshirsagar

Speech by Mr. Gajendra Chopde & Mrs. Apurva Jakhadi

Event Inauguration

Department decoration by students

Certificate Distribution

Technical Fest
Sandip Drishti 2018

A National Level Technical Event named Sandip Drishti was organized by Department of Electrical Engineering of Sandip Institute of Engineering & Management every year. This year the event was organized on 23rd & 24th February. Over 1000 Students from all over Maharashtra participated in the event. This event was sponsored by Visionary Technology, TAACT, EduTech Automation Pvt Ltd, T.I.M.E.S, R.S. Sheetal English Academy.

The event was held on 23rd and 24th of February 2018.The inaugural function was held a civil seminar hall for which Mr. Milind Tare a well-known consultant were present. He guided students about how to become a successful entrepreneur also he advised students to acquire all kind of skill to be competitive in today's world. Hon.Principal Prof. Dr. R. V. Kshirsagar, HOD Electrical Prof. H. R. kulkarni, Dean Academic Dr. A. Saner, Dean R&D Dr. M. D. Pasarkar Dean Admin Prof. N. L. Bhirud were also present for the ceremony.

Various Technical & Non Technical competitions were organized under Sandip Drishti 2018,

1) Paper Presentation Competition
   Students participated in this event presented papers on various topics such as Smart Grid, Wind Energy, etc and gave solutions about ongoing Industrial problems through the ideologies they researched on.
2) Poster presentation Competition
   Participants transformed their creative ideas in the form of posters. The Technical topics included were Electrical safety, Smart city, Renewable energy. Social awareness was created with the posters on women empowerment. Over 100 posters were on display.
3) Quiz Competition
   It was organized with the aim to test the general knowledge of the students. This event also encouraged the students to get them updated with world current affairs. The questions from various fields like Literature, Engineering Technology, Medical Science and Astronomy were asked which also included audio visual type questions. Over 50 teams actively participated in the event.
4) Circuit Mania
   This Competition encouraged the participants to build the industrial grade circuits that were designed and given them as a task to complete in a given time frame. This also helped them to hands on the various electrical components; identify them in our day to day life applications.

5) Haunted cricket

It was a unique form of Cricket in which the participants has to play cricket in a artificially created Dark room with only radium based pitch with Bat and Ball guiding them for game play. Each team consist of 5 players.

6) Lingorcha

It is a traditional Indian game played by children. To enhance the team spirit and group coordination, it was organized to put a light on the childhood memories. Students participated played it whole heartedly enjoying to the fullest.

7) Tug of War

This event tested the physical strength of the participants and made them give their 100% as for one team to emerge as winner. A team of 6 participated in the game.

8) Fun Fair

Funfair was organized which included mini games like Don't complete the loop, Mini militia, Hold the weight, Ludo, Hit and drop, etc. It was a play and win situations for the students to win a prize and have fun playing the games.

The winners were felicitated by prizes worth Rs. 1,51,000 by department and discount coupons worth Rs.2,00,000 of learning institutes were given to help students improve their competitive spirit and personality that will help them in their future. Food Discount Coupons of our event partner food chains were also gifted to all the participants.

Inauguration Program of Different events

Judgment of poster Competition

Paper Presentation

Students Presenting Poster on Different Themes

STUDENTS SECTION –

जय श्रीकृष्णा

- **By Jivan Shewale, TE-A SIEM Electrical**

STUDENTS PUBLICATIONS –

Vehicale Pollution Monitoring Using IoT

[1]Madhuri Pandharinath Bagul, [2]Rutuja Sharad Nikam, [3]Prof.Pallavi Jadhav

[1,2,3]Sandip Institute Of Engg. & Management,Electrical Department, Nashik.

[1]madhuribagul2659@gmail.com, [2]rutujanikam1810@gmail.com

Abstract:-The objective of this paper is to watch pollution on roads and track a vehicle that causes pollution, to unravelthis downside, several countries and regions have already bestowed a series of emissions standards, meantime some ways has been developed, as well as update motor engine or up the standard of the gasoline. However, these actions have not caused hanging impact, as we tend to expect. During this system, Radio Frequency Identification (RFID) technology as an inexpensive and mature wireless communication methodology is adopted to gather and transmit emissions data of vehicles and Internet of Things (IoT) concept is proposed. Moreover, The RFID devices have to be put in on the traffic lights so reliable reading of emissions signals from a vehicle may be interrogated once the vehicles stop ahead of the red light .By applying the system; it is possible to smoothly realize green traffic network.

Key Point:- Inspection system design, Internet of Things, Radio Frequency Identification, General Packet Radio System.

I. INTRODUCTION

The environmental problems are growing now days. Air pollutants from cars, buses and trucks can worsen respiratory diseases and trigger asthma attacks. Transportation is responsible for more than 50 percent of carbon monoxide in the air. The air pollution may lead to Chronic obstructive pulmonary disease (COPD) and escalates risk of cancer. The public health is affected due to pollution from vehicles. One of the major reasons of air pollution is emission of polluting gases from vehicles which is responsible for almost 70% of the total air pollution. To control the air pollution, the amount of air pollution needs to be monitored and vehicles causing the pollution should be identified. Internet of Things can be helpful in cities for monitoring air pollution from vehicles and also pollution data on different roads of a city can be gathered and analyzed.

Air pollution is an important factor affecting the quality of the lives of millions. Most of the pollutants in the air are a result of emissions from cars, trucks, buses, factories, refineries and natural occurrences like volcanic eruptions and forest fires. Because people breathe in contaminated air, they are exposed to many health risks. Air pollution might cause cancer, premature death, developmental disorders to children, harm reproductive systems, result in asthma attacks, or cause lung cancer. It may also cause wheezing and coughing, shortness of breath, harm to cardiovascular system, increase susceptibility to infections, lung tissue redness, or swelling. US Federal laws like Clean Air Act are designed to control and regulate air pollution.

Based on the motor vehicle registrations across states, the number of vehicles including cars and trucks on the roads increased by 30% in the last ten years [1]. Number of trucks alone almost doubled in the last ten years. On an average, a commuter spends more than fifty two minutes in travel per day(two way)and in some big cities he/she spends more than four hours per day (two way) inside the car [2]. According to India department of transportation, the total length of roads is four million miles and two hundred and forty six million vehicles travel on these roads [3]. Significant number of communities is built around these roadways. Motor vehicles emit a variety of gases such as Carbon Dioxide (CO_2), Carbon Monoxide (CO), Nitrogen Oxides (NO/NO_2), Particle Matter ($PM10$) and Ozone, which are by-products that come out of the exhaust systems. These emissions contribute significantly to the air pollution and smog especially in big cities. More than fifty three thousand people die per year because of these vehicular air pollutants [4].

II. LITERATURE SURVEY

Few locations, with usually high volume of traffic, may be identified to be monitored. In this framework, for each monitored location, the IOT readers are placed on the either side of a road with a fixed short distance in between them. Each vehicle passing through the road is equipped with a passive IOT tag.[2] Sensor nodes, composed of gas sensors, are placed on the roadside. The sensor nodes may be identified and addressed by unique IP address or a unique ID. These nodes gather sensor data continuously and send it wirelessly to the server.[1] Whenever the sensor nodes sense abrupt rise in pollution, search is initiated for concerned IOT tags, i.e. vehicles causing pollution are identified using the IOT tag attached on them. Pollution data is printed on arduino terminal not sent on internet server.[4]The IOT readers identify corresponding tag number and transmit the same via the GPRS modem to the server. This frame work also generates alert when pollution level increases. Authorities may take appropriate actions accordingly.[1] All the gathered data may be monitored and analyzed by

Madhuri Bagul, Rutuja Nikam, students of Electrical Engineering Department and **Prof.Pallavi Jadhav**, Asst. Professor, Electrical Department has published a paper on the topic "*Vehicale Pollution Monitoring Using IoT*"

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by: Prof. J.sarkar