ROHINI
COLLEGE OF ENGINEERING & TECHNOLOGY
Approved by AICTE and Affiliated to Anna University (An ISO Certified Institution)

Department of EEE

# MAGAZINE EDITION

# FEEDERS - 2018

BY
STUDENTS AND
FACULTY
MEMBERS OF
EEE - DEPARTMENT

Volume:3
ISSUE:3

# VISION

To create technically competent technocrats to meet the demand of Electrical and Electronics industry and societal need for the well being of human kinds.

# MISSION

M1. To provide knowledge and skills necessary for professional Development in Electrical and Electronics Engineering.
M2. To promote research and creativity in the area of Electrical and Electronics Engineering.
M3. To promote team work and professional conduct in sociological activities.

# PROGRAM EDUCATIONAL OBJECTIVES

PEO 1: Graduates of the programme will posses career in technical and allied fields.
PEO 2: Graduates will have the ability to adapt to the growing technological requirement of the society through lifelong learning and team work.
PEO 3: Graduates of the programme will possess knowledge to pursue higher studies.

**Shri.K.NEELA MARTHANDAN**
CHAIRMAN
Rohini College of Engineering and Technology

## MESSAGE

As A Chairman of Rohini College of Engineering and Technology. I feel proud that the students of Electrical and Electronics Engineering Department are releasing a magazine RCET is a dream project for me and I am happy that RCET is taking a proper shape with the co-operation of all concerned. Students are the real assets of RCET and when they realize their responsibilities, RCET will always remain above all other similar Institutions. I take this opportunity to wish all the students a bright future.

**Dr.R.Rajesh,M.E,.Ph.D**.
Principal
Rohini College of Engineering And Technology

## MESSAGE

It is a great pleasure for me that our Electrical and Electronics Engineering department is releasing a magazine.

The magazine is presenting a glimpse of the growth of the institution on many fronts. Our students and faculties have performed exceedingly well and competent enough in all the fields. Beyond academics, the research activities are being conducted.

The college also motivates and encourages staff and students to undertake research and enterprising skills. The faculty members plays major role in the overall development of department and institute.

I extend my greetings and best wishes to the faculties and students of the department and wish their endeavors my very best.

**Dr.N.NEELA VISHNU**
MANAGING DIRECTOR
Rohini College of Engineering And Technology

## MESSAGE

I understand that the students of Electrical and Electronics Engineering Department are coming out with a Magazine. As the Managing Director of Rohini College of Engineering and Technology, I feel proud about it. We have taken an oath that we will develop RCET to world class standard and provide an overall development to all the students. We march towards that goal. We are happy that the students of RCET are properly shaping up, facilitating us to meet our goal. I wish all success to the EEE students.

**Prof.P.JEYA KUMAR**
HOD / EEE
Rohini College of Engineering and Technology

## MESSAGE

I am highly elated and proud to announce that our department of 'Electrical and Electronics Engineering' is inaugurating the FEEDERS Magazine Edition. As our EEE department acts as a pioneering department in preparing students to completely globally in their profession and to reach the pioneer levels of in intellectual attainment.

I deem that the FEEDERS Association and symposium will trigger the talents of the students and kindle the light of innovation and technology. It's a fact that we constant updating to establish ourselves in this revolving dynamic world.

I express my heartfull and sincere thanks to all conveners, colleagues and student is who are the backbone of this endowers.

I am happy and wish the technical symposium as well as the release of magazine a grand success.

"OUR HARD WORK TO BE GRAND SUCCESS."

# Editorial Message

It is an occasion of immense pleasure for the Department of Electrical and Electrical & Electronics Engineering to publish the E- magazine "FEEDERS".

The Editorial board of department of EEE wants to thanks all the faculty members and students who have made this issue a success by providing an article.

This magazine focuses on the recent trends evolved in the field of electrical engineering & wants to provide advanced knowledge and awareness among the students about the same.

The Editorial board also wants to thanks the Management of the Institute and Head of the department for inspiring us to go forward in publishing this magazine.

**Editorial Board**

Prof. G.K.Jabash Samuel (Editor in Chief)

Prof. V.Ponselvan (AssociateEditor)

Mr. A.Ashok Kumar (Assistant Editor)

# Mobile Charging System By Human Walking

G.K.Jabash Samuel,V,Ponselvan,G.Murugan

Rohini College of Engineering and Technology

**ABSTRACT**:

A worn out battery or a lost charges are the two difficulties every electronic device user undergoes through. To overcome this we have proposed a new technology to adopt charging of these portable electronic devices with the help of human walking. Walking is the best and common activity in day to day life. We came to realize that ground reaction force (GRF) exerted from the foot, when converted into voltage gives enough power supply to run a device. While walking the person loses some energy from foot in the form of vibrations which are sensed and converted into electric form. Piezoelectric crystal does the work of generating output out of foot moment. Piezoelectric materials have the capability of absorbing mechanical energy from surroundings, especially vibrations and transform it into electric energy that can be used as power supply in real time to other appliances like mobile phones, power banks, various small handy biomedical instruments etc.

This project can be implemented while jogging in the morning, gym, walking on trade-mill, in dense populated areas like railways, bus stands, etc

**KEYWORDS:**

Battery, bio energy, biomechanics, generation, ground reaction force, GRF, Piezoelectric crystal, power supply, portable units, walking,.

## I. INTRODUCTION

The world's energy consumption is at an all the time high with the demand continuously increasing. With the advent use of portable machines in this technological world; it has become a major issue of power source. The situation brings up several challenges that need to be addressed.

1.) Power supply.
2.) Battery discharging.
3.) Availability of power source.

End with turning off the machine without battery In Biomechanics, the ground reaction force, GRF is the force exerted by the ground on the body in contact with it. For example, a person standing motionless on the ground exerts a contact on it which is equal to the person's weight and at same time an equal and opposite GRF is exerted by the ground on the person .Thus, as the human starts walking, this GRF increases which generates power in greater amount as shown in figure 1The utilization of waste energy of foot power with human locomotion is very much relevant for highly populated countries where the roads, railway stations, bus stands, temples, etc. The human bio-energy being wasted if it can be
made possible for utilization it will be very useful energy sources.

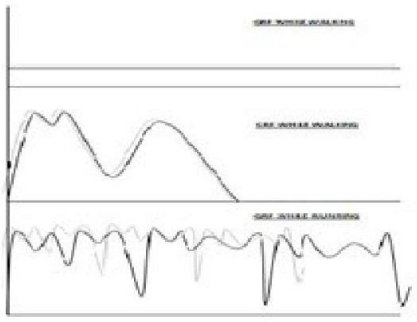


**Fig 1. GRF waveforms**.1. The waveforms during standing position , when no power generated, 2 during walking when 5V approx generated and a single waveform is obtained and and a single waveform is obtained and 3, the waveform during running when more than 5V is obtained thus giving double spikes.

Although small electronic devices are mostly powered by batteries, there are an increasing number of wireless sensors using energy harvesters instead of the batteries. For consumer electronic devices, there are different emerging technologies that are under research or in commercialization stages. Harvesting energy from humans is particularly useful for not only common people, but also for soldiers' portable electronic equipment. These harvesters produce energy from human's kinetic energy, thermal energy or body biological processes energies and they can benefit soldiers by decreasing the carrying load, patients by increasing the lifetime of the devices and reducing the number of surgeries to change the battery of the devices and consumer electronics users by providing a green and endless source of energy. In future, it could be more beneficial for a lot of applications especially for consumer electronic devices. The energy scavenging fruman's temperature has been studied and it was shown that it is capable to produce a very limited amount of energy that cannot charge any device properly. Thus, the energy harvesting with biological sources like walking is our main goal.

## II. RELATED WORK

The goal was effectively harvesting energy from walking, by making a small light weight device that efficiently converts intermittent, bi-directional, low speed and high torque mechanical power to electricity, and selectively engages power generation to assist muscles in performing negative mechanical work.

To achieve this, this device used a one-way clutch to transmit only knee extension motions, a spur gear transmission to amplify the angular speed, a brushless DC rotary magnetic generator to convert the mechanical power into electrical power, a control system to determine when to open and close the power generation circuit based on measurements of knee angle, and a customized orthopedic knee brace to distribute the device reaction torque over a large leg surface area.

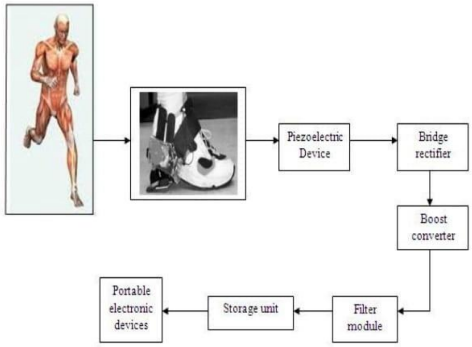
The device selectively engaged power generation towards the end of swing extension, assisting knee flex or muscles by producing substantial flexion torque (6.4 Nm), and efficiently converted the input mechanical power into electricity (54.6%). Consequently, six subjects walking at 1.5 m/s generated 4.8 ± 0.8 W of electrical power with only a 5.0 ± 21.

## III. FINAL STAGE

One of the most suitable methods for obtaining the energy from surrounding is using piezo electric crystal. Piezoelectric crystal is one of small scale energy sources. The piezoelectric crystals when subjected to vibration they generate a very small voltage, commonly known as piezoelectricity. It has a crystalline structure that converts an applied vibration into a electrical energy. Piezoelectric fiber composite can be connected in series with the capacitors and resistors to reduce or smooth a high voltage input produced by PFCB. For test purposes, the finger tapping was used to flick the tip of the piezoelectric crystal of metal disc type, in order to provide the initial disturbance. The testing was done using a multi-meter, and oscilloscope, connected to each other properly to obtain voltage readings as the tapping is done. The first test for voltage output depended on time variation and was conducted without any mass placed on it. This was followed by a second test with the foot step of different masses that were placed on the piezoelectric metal disc to observe the output voltage levels. As the more mass that is added on the tip, the more time passes until vibration of the sensor stops. The voltage from the piezoelectric metal disc increases depending on the mass and force applied to the tip of the sensor.

The following fig 2 shows the block diagram of our project. Each block is explained in detail.

FIG 2 BLOCKS DIAGRAM




**Bridge rectifier**:

Due to the vibrations, a piezoelectric crystal generates the electrical power. The produced output voltage is in the form of AC. Then it can be converted to DC by passing it through Rectifier circuit. The converted DC voltage can be fed into Boost converter. As shown in the figure, the bridge rectifier circuit is working in positive half cycle.

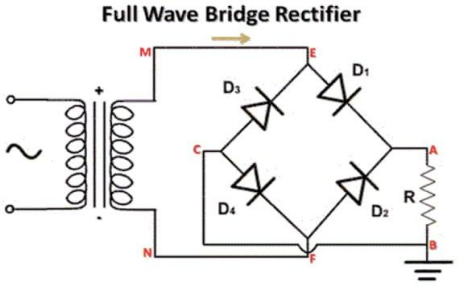


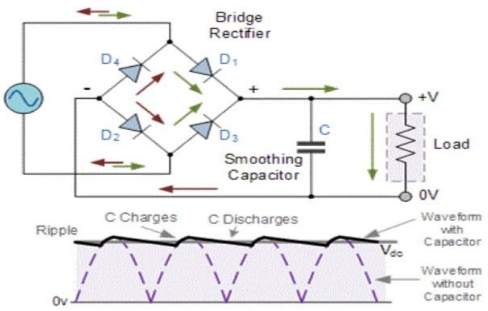

FIG 3. BRIDGE RECTIFIER

**Boost converter**:

A boost converter (step-up converter) is a power converter with an output DC voltage greater than its input DC voltage. It is a class of switching-mode power supply (SMPS) containing at least two semiconductor switches (a diode and a transistor) and at least one energy storage element. Filters made of capacitors (sometimes in combination with inductors) are normally added to the output of the converter to reduce output voltage ripple.

**Filter module:**

The rectified voltage from the rectifier is a pulsating dc voltage having very high ripple content; we want a pure ripple free dc waveform. Hence a filter is used. Different types of filters are used such as capacitor filter, LC filter, Choke input filter, π type filter. Figure below shows a capacitor filter connected along the output of the rectifier and the resultant output waveform.




Resultant Output Waveform

**Storage unit:**

It is basically a power bag which stores the charge generated by the piezoelectric and charges the other portable electronic devices.

**Lithium- Ion Battery**

Pure lithium is very reactive. It reacts vigorously with water to form lithium hydroxide and hydrogen gas. Thus, a non-aqueous electrolyte is typically used, and a sealed container rigidly excludes water from the battery pack .Lithium-ion batteries are more expensive than Ni Cd batteries but operate over a wider temperature range with higher energy densities, while being smaller and lighter. They are fragile and so need a protective circuit to limit peak voltage.

**REAL TIME APPLICATIONS**

**General**

[1] Mobile phone
[2] Electronic Torch
[3] Cell Charger

**Biomedical**

[1] TCB meter
[2] Digital Thermometer
[3] Ultrasound Scan machine
[4] Cold Laser Pain Therapy
[5] Breathe analyzer for alcohol

**ADVANTAGES**

[1] Can be used anywhere.
[2] Portable charging.
[3] No side effect on human body.
[4] Non Bulky
[5] Gives power supply in real time.

## V. CONCLUSION

5V output is obtained while walking which is later boosted up by the DC to DC boost converter .This boost converter gives the 8-9V voltage output, which can be used to charge the mobile phone (requiring 3.7V) in real time .Thus, in all we conclude that with this process, we can extract the energy from the human feet, convert it into electric energy and use it in real time application of charging the devices.

## REFERENCES:

1. Rocha. J.G, Gonçalves L. M, Rocha .P. F, Silva. M. P., And Lanceros-Méndez. S. (2010) "*Energy Harvesting From Piezoelectric MaterialsFully Integrated In Footwear*"- IEEE Transactions On Industrial Electronics, Vol. 57, No. 3, March 2010

2. Faruk Yildiz Sam "Energy Harvesting From Passive Human Power "Houston State University International Journal Of Innovative Research InScience, Engineering And Technology Vol. 2, Issue 7, July 2013

# Organic Light Emitting Diode

Organic Light Emitting Diode (OLEDs) operate on the principle of converting electrical energy into light, a phenomenon known as electro-luminousness. They consist of emissive electroluminescent layer comprised of a film of organic compounds (carbon, hydrogen & oxygen). In its simplest form, an OLED consists of a layer of luminescent materials sandwiched between two electrodes. When an electric current is passed between the electrodes, through the organic layer, the light is emitted with a color hat depends on the particular material used.

The battery or power supply of the device containing the OLED. An electric current flows from the cathode to the anode through the organic layers. The cathode gives electrons to the emissive layer of organic molecules. The anode removes electron from the conductive layer of organic molecules. At the boundary between the emissive & the conductive layers, electron finds electron holes. When an electron finds an electron hole, the electron fills the hole. When it happens the electron gives up energy in the form of a photon of light. The OLED emits light. The color of light depends on the type of organic molecules in the emissive layer. Manufacture place several types of organic films on the name OLED to make color displays. The intensity or brightness of the light depends on the amount of electrical current applied the more current, the brighter the light.

*M.SARIKA VANI /Final EEE*

# Poem

## Because you are my friend

Because you are my friend,
my life is enriched in a myriad of ways.
Like a cool breeze on a sweltering day,
like a ray of sunshine parting glowering clouds,
you lift me up.
In good times, we soar,
like weightless balloons
over neon rainbows.
In bad times, you are soothing balm
for my pummeled soul.
I learn so much from you;
you help me see old things in new ways.
I wonder if you are aware
of the bright seeds you are sowing in me.
I'm a better person for knowing you,
so that everyone I interact with
is touched by your good effect on me.
You relax me, refresh me, renew me.
Your bounteous heart envelops me
in joy and love and peace.
May your life be filled
with dazzling blessings,
just as I am blessed
by being your friend.

***M. MUTHU PRIYA /Final EEE***

# TAG COUPLING AND COMMUNICATION

Passive RFID tags obtain their operating power from the electromagnetic field of the reader's communication signal. The limited resources of a passive tag require it to both harvest its energy and communicate with a reader within a narrow frequency band as permitted by regulatory agencies. Passive tags typically obtain their power from the communication signal either through inductive coupling or far field energy harvesting.

Inductive coupling uses the magnetic field generated by the communication signal to induce a current in its coupling element (usually a coiled antenna and a capacitor). The current induced in the coupling element charges the on-tag capacitor that provides the operating voltage, and power, for the tag. In this way, inductively coupled systems behave much like loosely coupled transformers. Consequently, inductive coupling works only in the near-field of the communication signal. For a given tag, the operating voltage obtained at a distance d from the reader is directly proportional to the flux density at that distance.

There is a fundamental limitation on the power detected a distance d away from a reader antenna. In a loss less medium, the power transmitted by the reader decreases as a function of the inverse square of the distance from the reader antenna in the far field. A reader communicates with and powers a passive tag using the same signal. The fact that the same signal is used to transmit power and communicate data creates some challenging trade-offs

The electronic toll Collection systems are a combination of completely automated toll collection systems and semi-automatic lanes. Various traffic and payment data are collected and stored by the system as vehicles pass through. The different technologies involved are logically integrated with each other but remain flexible for upgrades. They also include sophisticated video and image capturing equipment for full-time violation enforcement. So this basic arrangement developed by us will applicable for the future developments in road transport by proper modifications. RFID systems have a secure place in the automatic identification sector. The system can made free from the challenges and will be cost effective in near future. Humiliation is behind them and they can start to build the kind of team that Iraq deserves.

*S. RENUKA DEVI /III EEE*

# SEMINARS/WORKSHOPS ATTENDED BY FACULTY

| No | Name of the Faculty | FDP/SSTP Topic | Duration | College Name |
|---|---|---|---|---|
| 1. | Dr.D. SAM HARISON | FDP on recent trends and applications of High Voltage engineering | 14 days | National engineering College, Kovilpatti |
| 2. | Dr.T.SREEDHAR | FDP on recent trends and applications of High Voltage engineering | 14 days | National engineering College, Kovilpatti |
| 3. | Mr.GOPAKUMAR. S | ISTE SSTP on Electric Power System | 14 days | St.Xaviers Catholic College of Engineering, Chunkankadai |
| 4. | Mr.PONSELVAN. V | 1.FDP on recent trends and applications of High Voltage engineering<br>2.ISTE SSTP on Electric Power System | 1. 14 days<br>2. 14 days | 1.National engineering College, Kovilpatti<br>2.St.Xaviers Catholic College of Engineering, Chunkankadai |
| 5. | Mrs.THANGASAKTHI | FDTP on Renewable Energy Systems | 7 days | St.Xaviers Catholic College of Engineering, Chunkankadai |
| 6. | Mr.SANJU S | FDTP on Renewable Energy Systems | 7 days | St.Xaviers Catholic College of Engineering, Chunkankadai |
| 7. | Mr.PADMA KUMAR.R | FDTP on Renewable Energy Systems | 7 days | St.Xaviers Catholic College of Engineering, Chunkankadai |

# INDUSTRIAL VISITS:

The department is associated with various government, quasi-government and private industries in the field of Electrical Engineering.

Our students visit these companies to get a practical exposure to current work practices.

The details of the industrial visits are furnished below

| Date of Visit | Name of Industry | Scope of Visit |
|---|---|---|
| 12-1-2018 | 110/11KV Substation<br>Karungulam ,TNEB | To study about transmission and distribution of grid system |
| 23-8-2017 | Dalmia Wind form | To study about power quality issues |
| 6-7-2017 | Koodangulam Atomic power station | Waste disposal of power plant |
| 23-8-2017 | 110/11KV Substation<br>Aralvoimozhi<br>TNEB | Practical study of testing of insulators and relays |

# INDUSTRIAL VISITS

## Participation of students in National and International Conferences:

| | | | |
|---|---|---|---|
| RENUKA DEVI S | Real Time Detection System Of Electrical Distrubances In Remort Communication Stations And Smart Grid | International conference | Tamizhan college of Engineering and Technology |
| SANTHIYA J | Real Time Detection System Of Electrical Distrubances In Remort Communication Stations And Smart Grid | International conference | Tamizhan college of Engineering and Technology |

## Paper Presentation in Other Colleges

| No. | Name | Event | Venue | Date |
|---|---|---|---|---|
| 1. | N.K.Saravanan | LECTRON2K18 | Loyola Institute of Technology and science, Thovalai | 09-01-2018 |
| 2. | H.Rahul | STROMSTYRKE'18 | DMI Engineering College, Kumarapuram. | 23-02-2018 |
| 3. | H.Rahul | CASTILO'18 | Ponjesley college of Engineering | 09-03-2018 |
| 4. | Jimson Cardoz | CASTILO'18 | Ponjesley college of Engineering | 09-03-2018 |
| 5. | Jimson Cardoz | ASPIRE-2k18 | Annaivailankanni college of Engineering | 14-03-2018 |
| 6. | H.Rahul | ASPIRE-2k18 | Annaivailankanni college of Engineering | 14-03-2018 |

| | | | | |
|---|---|---|---|---|
| 7. | Jimson Cardoz | TECH BIYO_18 | St.Xavier's Catholic College of Engineering | 15-03-2018 |
| 8. | H.Rahul | TECH BIYO_18 | St.Xavier's Catholic College of Engineering | 15-03-2018 |
| 9. | H.Rahul | ZEUS2K18 | James college of Engineering ,Navalkadu. | 16-03-2018 |
| 10. | Jimson Cardoz | ZEUS2K18 | James college of Engineering Navalkadu. | 16-03-2018 |
| 11. | Jimson Cardoz | SYNERGIX 2K18 | James college of Engineering Navalkadu. | 16-03-2018 |
| 12. | H.Rahul | SYNERGIX 2K18 | James college of Engineering ,Navalkadu. | 16-03-2018 |
| 13. | Vino Bharath | INVICTA 2K18 | Noorul Islam University,Kumarakoil. | 21-03-2018 |
| 14. | N.Nisha | INVICTA 2K18 | Noorul Islam University,Kumarakoil. | 21-03-2018 |
| 15. | N.K.Saravanan | INVICTA 2K18 | Noorul Islam University,Kumarakoil. | 21-03-2018 |
| 16. | R.Kavitha | INVICTA 2K18 | Noorul Islam University,Kumarakoil. | 21-03-2018 |
| 17. | D.Jennifer | .INVICTA 2K18 | Noorul Islam University,Kumarakoil. | 21-03-2018 |

| | | | | |
|---|---|---|---|---|
| 18. | N.K.Saravanan | .ALTIUS 2K18 | Noorul Islam University,Kumarakoil | 22-03-2018 |
| 19. | H.RAGUL | .ALTIUS 2K18 | Noorul Islam University,Kumarakoil | 22-03-2018 |
| 20. | H.Rahul | Techliga'18 | Noorul Islam University,Kumarakoil | 27-03-2018 |
| 21. | N.K.Saravanan | TRONTRICALS'18 | KNSK college of Engineering | 23-03-2018 |
| 22. | Vino Bharath | TRONTRICALS'18 | KNSK college of Engineering | 23-03-2018 |
| 23. | H.Rahul | TRONTRICALS'18 | KNSK college of Engineering | 23-03-2018 |

## The students who undergo training/internships

| | | |
|---|---|---|
| Kavitha.R | 1 Month | ELCOMPO |
| Renuka Devi | 1 Month | ELCOMPO |
| Vishnu | 3 Weeks | DS CONNECTORS AND CABLES |
| Vejin.M | 1 Month | NICE PANEL electrical and Automation |

# PRODUCTS OF THE YEAR

| No | Name of the Product | Image of the Product | Description &Application |
|---|---|---|---|
| 1. | RASPBERRY PI Based Home Automation |  | Low cost and flexible home control and monitoring system using an embedded microprocessor and microcontroller with IP connectivity for accessing and controlling devices and appliances remotely using smart phone application |
| 2. | Hybrid solar and wind Turbine |  | Renewable Energy system is the growing generating area in present century. The characteristic of PV and wind turbine is studied. Study of MPPT algorithm is done. |

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# LIST OF STUDENTS PLACED IN ACADEMIC YEAR

## (BATCH 2014 – 2018)

| Program: EEE | | Assessment Year: 2017 – 2018 | | LYGm1 (2014-15) |
|---|---|---|---|---|
| **S.no.** | **Student Name** | **Enrollment no** | **Company Name** | **Appointment No** |
| 1 | ABINAYA G | 963314105001 | Taiwan Surface Mounting Technology Corp | VS/TSMT/GT18/E69 |
| 2 | AJAY S | 963314105002 | Elcompo Electronic Industries Private Limited | ELCO/ET18/E-113 |
| 3 | ARUL ROBINSON.N | 963314105004 | Perfect Electronics ltd | PEIPL/TE/18E-32 |
| 4 | ASHOK KUMAR A | 963314105005 | DS Connectors and Cables India Pvt ltd | DSCACIPL/ET18/E-14 |
| 5 | BALA MURUGAN T | 963314105006 | AQUA EXCEL | AEPL/PT18/E-67 |
| 6 | MUTHU PRIYA M | 963314105008 | Taiwan Surface Mounting Technology Corp | VS/TSMT/GT18/E72 |
| 7 | NAVEEN PRABHAKAR | 963314105009 | Perfect Electronics ltd | PEIPL/TE/18E-35 |
| 8 | SAKTHI GANESH R V | 963314105012 | Elcompo Electronic Industries Private Limited | ELCO/ET18/E-116 |

| | | | | |
|---|---|---|---|---|
| 9 | SARANYA A | 963314105013 | iled lighting systems pvt ltd | ILEDLS/ET18/E-68 |
| 10 | SARIKA VANI M | 963314105014 | AQUA EXCEL | AEPL/PT18/E-69 |
| 11 | SUBITHRA C | 963314105016 | Vishay Precision Group | VPG/PE18/TE118 |
| 12 | SUTHA R | 963314105017 | Taiwan Surface Mounting Technology Corp | VS/TSMT/GT18/E74 |
| 13 | GOVINDHAN K | 963314105302 | DS Connectors and Cables India Pvt ltd | DSCACIPL/ET18/E-16 |
| 14 | PALANI KARUPPASAMY K | 963314105305 | iled lighting systems pvt ltd | ILEDLS/ET18/E-73 |
| 15 | SANTHIYA.S | 963314105309 | Elcompo Electronic Industries Private Limited | ELCO/ET18/E-118 |
| 16 | THAMPURAN.S | 963314105311 | Vi Microsystems Pvt. Ltd | VIMS/AM-1831 |
| 17 | VIJITHA.E | 963314105313 | TVS Supply Chain Solutions | TVSSCS/P&A/6361-3191 |

# ARTISTS' CORNER


# Click-O-Clicks™

*THAMPURAN.S/Final EEE*

## International Conference On

# ADVANCED INNOVATION IN ENGINEERING AND TECHNOLOGY

Department Of Electrical And Electronics Engineering organized International Conference on Advanced Innovation in Engineering and Technology to empower the student community and Research scholars in the field of Electrical and Electronics Engineering. CD on the proceedings of the ICRICC'18 was released in the presence of the dignitaries Chief Guest Er. R.S.Sawant - Superintendent / NPCL and Prof. Jean Luc Murarimano, Ruwando, the Principal, the Heads of various Department.

ROHINI
COLLEGE OF ENGINEERING & TECHNOLOGY

Department of Electrical and Electronics

# FEEDERS-2018


Magazine Edition-2018