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THE SPARK

Igniting Innovations

DEPARTMENT OF
ELECTRICAL AND ELECTRONICS
ENGINEERING

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2024



UNIVERSITY COLLEGE OF ENGINEERING KAKINADA (A)
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

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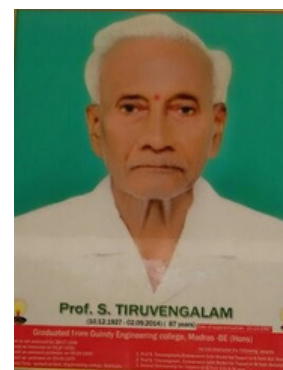
03 ARTICLES



BIOGRAPHY OF THE GREAT PROFESSOR S.TIRUVENGALUM

Remembering Professor Seeram Tiruvengalum: A Teacher, Mentor, and Friend

“A great teacher is one whom a student remembers and cherishes forever”. Professor S.Tiruvengalum, a remarkable teacher who became an unforgettable influence on everyone he taught. He was not just an esteemed professor of Electrical Engineering but a true mentor, friend, and role model to countless students, leaving a profound impact on our college and in the hearts of all who knew him.



Portraits of the Prof. S. Tiruvengalum Through the Ages



House of Professor S.Tiruvengalum

A Humble Beginning

Professor Tiruvengalum's life began in a small village, Appikatla, near Guntur, Andhra Pradesh. Born on December 10, 1928, into a family of modest means, he grew up without many resources. Yet, despite the challenges, he was incredibly determined. In his school years at Municipal High School, Bapatla, his exceptional academic talent caught the attention of Burle Adinarayana, a compassionate teacher who went out of his way to support this promising student. With the help of Mr. Adinarayana and the generous community in Bapatla, Professor Tiruvengalum continued his studies, excelling all the way to college and graduating with a gold medal in Electrical Engineering from Guindy Engineering College, Madras.

A Teacher Who Gave His All

Joining Government Engineering College, Kakinada in 1958, Professor Tiruvengalum quickly became known as a teacher who had both knowledge and an incredible way of sharing it. He also held the position of **Head of the EEE Department during the years 1958-59 and 1977-78 at JNTUK**. He was deeply respected and loved by his students, who marveled at how clearly he explained complex concepts and guided them toward success. Students from all over came to him for his wise counsel, knowing that he believed in each of their potentials. He made every student feel valued, often saying that the brightest future belongs to those who never stop learning. His lectures were captivating, filled with passion and dedication, and no one wanted to miss his classes.

A Life of Generosity and Kindness

Professor Tiruvengalum dedicated his life not just to teaching but to helping those in need. Having once been a struggling student himself, he understood the value of support and went out of his way to provide it. He remained a bachelor, choosing to use his earnings to help countless students who, like him, needed a helping hand. He didn't stop with financial support; he offered mentorship, guidance, and a listening ear, always ready to give his time to those who sought his wisdom. Even long after they graduated, his former students remembered him with gratitude, crediting their achievements to his kindness and guidance.

An Enduring Legacy

When he retired in 1988, Professor Tiruvengalum left behind not just a career but an entire legacy of kindness, compassion, and excellence. Professor liked the climate of Anantapur and so he never accepted to move from there till his retirement in 1988. Just before retirement he constructed a small house like that of quarters by taking site just before the college. He stayed there only till his last day 2nd Sept 2014. In the stages he sold the house and stayed there as tenant to avoid complications after him.

A Tribute from His Associates

Professor Tiruvengalum showed us that being a teacher means more than delivering lectures—it means giving a piece of your heart to each student, believing in them, and guiding them toward their dreams. As we remember him today, his legacy reminds us of the profound impact a dedicated teacher can have on the lives of those he touches.

In his life, Professor Tiruvengalum embodied the words:

**“A great teacher is one whom a student remembers and cherishes forever” and
“A good teacher is like a candle—it consumes itself to light the way for others.”**

ACHIEVEMENTS

- Dr. N. Sumathi, Associate Professor has been appointed as Project Engineer (Electrical), JNTUK Kakinada in October 2024.



Congratulations!

on securing admission to the Ph.D. program at JNTUK.



Ms.K.Joshi Rani
Assistant Professor(C)



Sri.L.V.Narayana
Assistant Professor(C)



Sri.R.S.Sudhakar
Guest Faculty



Mr. Koduri Gowtham (21021D3407) - M.Tech (AEPS)
has secured PhD admission (Full-time) at NIT Tadepalligudem, Andhra Pradesh.



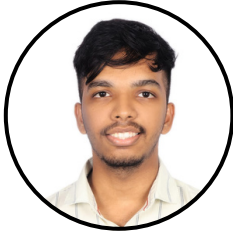
Ms. Kranthi Devarapalli (21021D3405) - M.Tech (AEPS)
for being selected as a project assistant fellowship in AERONAUTICAL DEVELOPMENT AGENCY in DRDO with a monthly stipend.

- **Mr. Duddupdi Srichakri (23021D5204) - M.Tech (PED)**, selected as a “Student Trainee” in Bosch Global Software Technologies Private Limited (“Company”), Bangalore.
- **Mr. Rakesh Nokku (22021D0803) - M.Tech (HVE)**, selected as a “TRAINEE ENGINEER” in TRANS ELECTRO based at GUNDLAV G.I.D.C., VALSAD (Gujarat) INDIA.
- **Mr. Chandrasekhar Desiredi (22021D0802) - M.Tech (HVE)**, selected as a “Engineer (Testing)” in MODERN INSULATORS LTD, Andhra Pradesh.
- **Mr. A. ADARSH (23021A0202)** of EEE department won a cheque of Rs. 1,00,000/- as a team which was presented by **Subbu Kota Foundation** for their excellent and innovative startup ideas.



Congratulations!

for being placed as “Graduate Engineer Trainee ”



Sri.Y.Guna Sekhar
22025A0258



Sri.M.V.Lokesh
22025A0259



Sri.Ashif Shaik
22025A0254



Ms.P.Lavanya
22025A0255



Ms.Y.Sai Saranya
21021A0220

WITH CTC 7.5 LPA

MOOC CERTIFICATIONS

- Dr. K.Venkata Reddy, Professor of EEE has completed MOOCs on “Electrical Bussiness” &”Electric cars :Introduction” by Delft X through edX.
- Mr. Thota Sai Govinda Krishna (22021A0246) of III B.Tech EEE has completed MOOC on “Electric cars Introduction” by Delft X through edX.
- Ms. Ch Pragya (22021A0217) of III B.Tech EEE has completed MOOC on “Java programming fundamentals” by GalileoX through edX.
- Mr. M Maharshi (21021A0211) of IV B.Tech EEE has completed MOOC on “Build Your First IoT Application with Arm” by arm education through edX.
- Ms. Kasa Chaitra Lahari (21021A0246) of IV B.Tech EEE has completed MOOC on “Machine Learning with Python: A Practical Introduction” by IBM through edX.
- Ms. Duba Vijaya Ramya (21021A0214) of IV B.Tech EEE has completed MOOC on “Introduction to the Internet of things (IoT)” by Curtin University through edX.
- Ms. Paila Lavanya (22025A0255) of IV B.Tech EEE has completed MOOC on “Machine Learning with Python: A Practical Introduction” by IBM through edX.

SWATCHHATA HI SEVA 2024

SWATCHHA HI SEVA

The Swachhata Hi Seva program, launched by Hon'ble Prime Minister Narendra Modi in 2017, is a national cleanliness campaign aimed at reinforcing the importance of sanitation and hygiene across the country. A part of the broader Swachh Bharat Mission, this initiative encourages citizens to actively participate in cleaning public spaces and spreading awareness about cleanliness. The program emphasizes the idea that cleanliness is not just the responsibility of the government but a collective duty of every citizen, aligning with the vision of a cleaner, healthier, and more sustainable India.



source : <https://images.app.goo.gl/fZons76qD28dbscZ6>



Swachh Hackathon in JNTU Alumni 1979-83 Batch Auditorium.



Prof.K.V.S.G.Murali Krishna Vice-Chancellor (i/c) of JNTUK participated in beach cleaning program at kakinada Beach.



EEE 3rd year students participated in Swachhata Hi Seva -2024 at Kakinada Beach

SWACHH HACKATHON: EMPOWERING YOUTH FOR A SMARTER AND CLEANER KAKINADA

The 15-day Swachh Hackathon organized nationally across India, concluded with an event at our college. The final event, held in the Alumni Auditorium, featured insightful discussions led by distinguished guests, including G.S. Chakravarthi, the City Chief Data Officer & ICCM Model Officer, the Municipal Health Officer (MHO) of Kakinada, and our Hon'ble Vice Chancellor, Prof. KVS G Murali Krishna.

One of the key takeaways from the event was the emphasis on waste segregation into dry and wet categories, as highlighted by the MHO. This is a crucial step in improving waste management and ensuring the sustainable development of cities. The importance of cleanliness and hygiene at both community and individual levels was reiterated, showcasing how small yet consistent efforts can collectively lead to significant improvements in urban environments.

Following this, G.S. Chakravarthi spoke about the main goal of the hackathon and explained why Kakinada is called a Smart City, showcasing the latest technological advancements in the city. He also encouraged us, the youth, to contribute to transforming Kakinada into an ideal city, inviting our opinions and innovative ideas for its improvement.

Finally, the Vice Chancellor, Prof. KVS G Murali Krishna, shared his deep affection for Kakinada. He spoke about the role of students both at college and at home, stressing the importance of cleanliness and hygiene. He provided insight into when Kakinada was designated a Smart City and explained why it stands out compared to other cities globally. He also discussed living conditions in different countries, highlighting how Kakinada excels in various aspects. He concluded by encouraging students to participate in different events and to enjoy life to the fullest.

The Swachh Hackathon was an inspiring event that emphasized cleanliness, hygiene, and sustainable urban development, highlighting Kakinada's progress as a Smart City. It empowered students to actively contribute to improving their community through innovation and responsibility. The focus on waste segregation and practical actions, along with encouragement from influential speakers, reminded participants of their role in shaping the future. Overall, the program combined education, inspiration, and action, motivating the youth to be active contributors to a smarter, cleaner, and more sustainable world.

"Cleanliness is next to godliness"
-John Wesley

WRITTEN BY
G.NAVEEN SAI (22021A0224)
R.D.PAVAN KUMAR (23025A0264)

SMART GRID

The important thing for power systems is reliability and continuous supply of electrical energy without any surges or spikes which may damage the equipment. Traditional power grids have one way information flow but this smart grid has 2way information flow. Some situations like Heavy rains, thunder storms, floods and other natural calamities may disrupt the power lines. Also because of some reasons there may be disrupt in power and discontinuous supply, This smart Grid with the help of sensors that are present throughout the grid helps us finding in the fault location as fast as possible and restoration of power becomes fast.

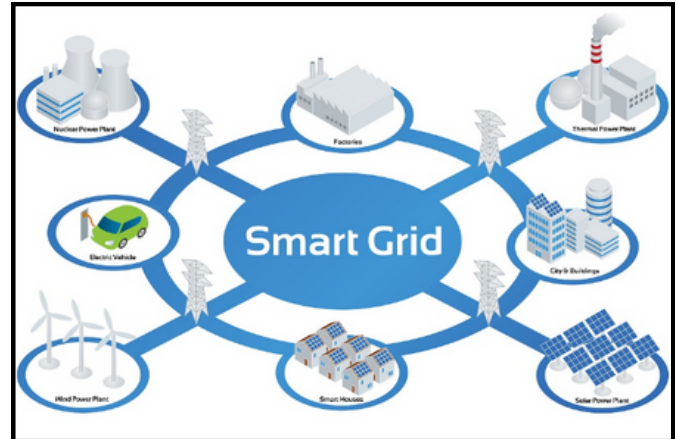


WHAT IS SMART GRID?

A smart grid is an upgraded version of our traditional electrical grid. The traditional grid is like a one-way street, electricity flows from power plants to homes. However, a smart grid is more like a two-way street. It allows electricity to flow in both directions and uses advanced technology to make the system smarter and more efficient.

Key features of Smart Grid:

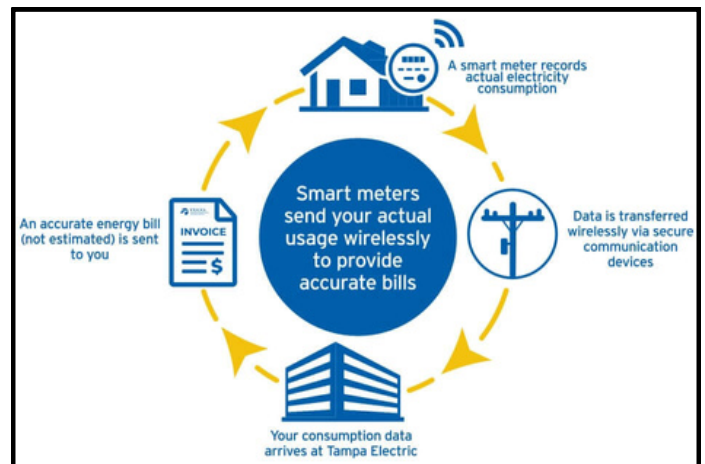
- Smart Grid is installed with smart meters, sensors, which can detect any fault and smart meters which allows real time tracking of electricity usage, which allows users to for better management of electricity. Advanced sensors which monitors equipment 24/7 and responds to faults.
- Smart Grid enables for reduced intervention manually and automated control will be installed.
- Two – Way communication: Smart Grids enables two-way communication between utilities and consumers. This allows utilities to remotely manage power usage and consumers to track their consumption patterns.
- Integrated Energy system: we have renewable energy resources like solar power plants, wind, hydro power plants which are connected to the grid. Also we the consumers can also produce power by means of solar energy and then sent back to the grid. The power that is sent back is calculated through smart meter can is paid to consumer.
- It is also Environmental friendly.
- Better Energy Management that is in traditional power grids from producer to consumer the efficiency will be reduced and voltage regulation is increased but in smart grids the efficiency is increased and the voltage regulation is increased.



<https://www.gprd.in/eesgm.php>

Challenges of Smart Grid:

- High initial cost: Cost of implementation is high because of smart meters, sensors and etc., equipment which increases cost of implementation.
- Privacy and security: As in Smart Grids smart meters are used which will collect our personal data which is a privacy threat because of Cyberattacks may prone to occur.
- To implement this Smart grid government, consumers and industries participation is necessary. Generally in rural or urban sides people with no education may not know about it so they won't accept this, Awareness among people is necessary for implementation about the smart Grid.
- Awareness among people it is generally for low or no education.



<https://www.pmfias.com/smart-meters/>

At last SMART GRID provides better energy management and also reliability on the system is increased. It is environmental friendly so this smart grids has more advantages than traditional power grids. And also in future AI (Artificial Intelligence) may keep its step into the field of power systems which can even more increase the features of the Smart grid and reduces manual intervention.

WRITTEN BY
G.GNANENDRA
(24025A0255)

EVENTS AND WORKSHOPS

- Dr. K. Ravindra, Professor, has delivered a lecture on “Evolutionary algorithms for DG planning” in Dept. of EEE, Aditya University (A), Surampalem, on 19 th Oct. 2024.



- On the occasion of Gandhi Jayanthi, EEE students participated in Beach Cleaning Activity organised by NSS-JNTUK as a part of Swachhata Hi Seva Programme-2024

- The EEE Department organised a “NSS Activity” as a part of the SWATCHHATA HI SEVA 2024 programme.



- The Department of EEE welcomes I Year M.Tech students of High Voltage Engineering, Advanced Electrical Power Systems and Power Electronics and Drives specializations.



ARTS AND CULTURALS



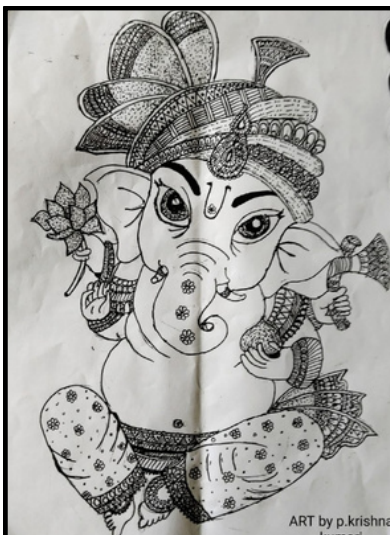
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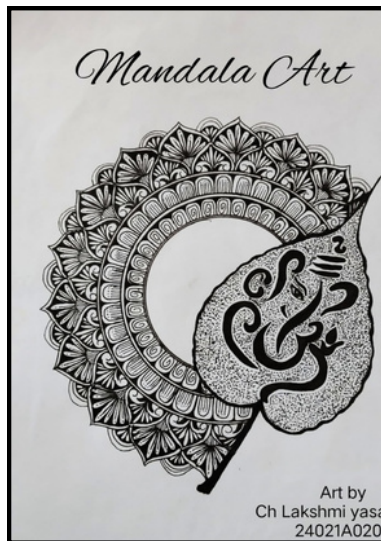
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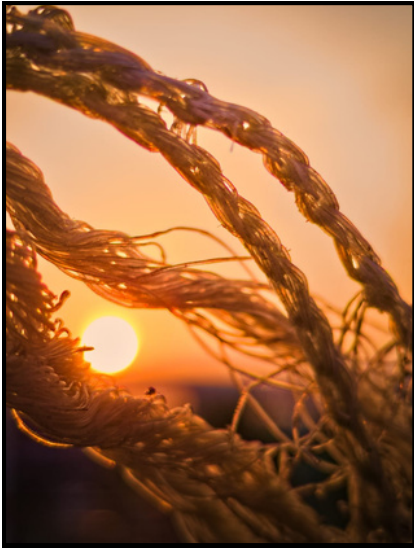


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