



Department of Electronics & Communication Engineering

GOVERNMENT POLYTECHNIC FOR GIRLS, SURAT

APRIL -2022: Vol.-1

EC TRENDS

E-Newsletter



Electronics & Communication Engineering

Vision:

Be an excellent department for girls to empower them in the field of Electronics and Communication engineering to excel in industry and serve society.

Mission:

- To prepare professionally competent students and staff through academic excellence.
- To create a conducive environment in the department for exchange of ideas and knowledge.
- To provide opportunities in the department for skill development and innovation.
- To provide resources and infrastructure for best learning experience in the department.

Message from Head of Department



Dr. S. N. Sampat

Head of the Department (HOD) Electronics and communication Engineering.

(I/C principal, GPG., Surat)

It gives me immense pleasure to lead the Department unique like a prism reflecting the manifold shades of learning and co-curricular activities.

Department of Electronics and communication Engineering is working very hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence in field of Electronics and communication Engineering and to provide the highly skilled engineers in the service of Nation.

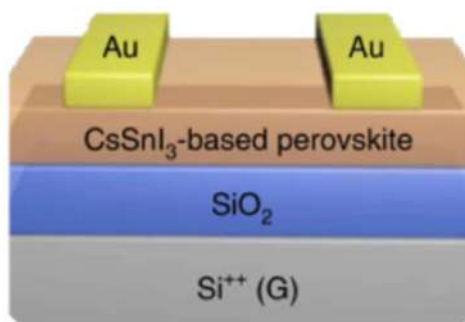
The prime motive of our Department is to provide quality education to our students. The process of learning is extremely important in life. What you learn, how you learn and where you learn play a crucial role in developing ones intellectual capability, besides career. The excellent infrastructure, teaching faculty of the best kind ensuring quality education such as interaction among students, parents and staff.

Kind Regards,
Principal of GPG, Surat

Here we have taken this document Published in ELECTRONICSFORU on March 28, 2022. so that all can be aware of Trends in Electronics or Technology Field.

POSTECH RESEARCHERS DEVELOP A WAY TO PRINT PEROVSKITE-BASED TRANSISTOR

Researchers at Pohang University of Science & Technology (POSTECH), South Korea, developed a high-performing p-type transistor using perovskite, a naturally occurring mineral of calcium titanate. This study was published in Nature Electronics in February 2022. The improved performance of these transistors has now enabled solution-processed perovskite transistors to be simply printed as semiconductor-like circuits.



The device structure of inorganic CsSnI₃-based perovskite TFTs.

Perovskite-based transistors combine the p-type semiconductors that exhibit hole mobilities with n-type semiconductors in order to control the current. However, fabricating p-type semiconductors has always been a challenge. Although the perovskite in the p-type semiconductor has excellent electrical conductivity, its reproducibility is poor and this has hindered its commercialization so far. Moreover, improving its electrical performance has also been an issue.

The research team led by Professor Yong-Young Noh and PhD candidates Ao Liu and Huihui Zhu (Department of Chemical Engineering), in collaboration with Professor Myung-Gil Kim (School of Advanced Materials Science and Engineering) of Sungkyunkwan University used the modified inorganic metal halide, Caesium Tin Triiodide (CsSnI₃) to develop the p-type perovskite semiconductor. During their research, the

resulting transistor recorded the highest performance among the perovskite semiconductor transistors that have been developed so far.

By making the material into a solution, the researchers succeeded in simply printing the p-type semiconductor transistor as if printing a document. This method is not only convenient but also cost-effective, which can lead to the commercialization of perovskite devices in the future.

“The newly developed semiconductor material and transistor can be widely applicable as logic circuits in high-end displays and in wearable electronic devices, and also be used in stacked electronic circuits and optoelectronic devices by stacking them vertically with silicon semiconductors,” explained Professor Yong-Young Noh on the significance of the study.

This approach could help lead to the development of high-performance p-channel transistors and complementary electronics that require only low-cost solution processes.

EVENTS OF THE MONTH

A wide and diversified range of extracurricular activities exists on GGP, SURAT campuses. Students become involved in extracurricular activities not only for entertainment, social, and enjoyment purposes, but most important, to gain and improve skills and offer many social opportunities while also promoting service.

Various offline Events are Held at institute G.P.G., SURAT.

PLACEMENTS

The Training and Placement Cell facilitates the process of placement of diploma holder students from the institute besides collaborating with leading organisations in setting up internship programmes for the students. The Cell provides the infrastructural facilities to conduct pre-placement talks, online and written aptitude tests, group discussions, interviews besides catering to the hospitality of industry officials while on campus.



DATE : '02/03/2022

EVENT NAME: **Campus Recruitment Drive** at DR. S. & S. S. Gandhi Government Engineering college, Surat.



DATE : '03/03/2022

EVENT NAME: **Campus Interview** Held at V. K. Hall, G.P.G. Surat.



DATE: '08/03/2022

EVENT NAME: Expert Lecture on “**How to prepare for an interview**” by Dr. B. B. Rana
HOD of DR. S. & S. S. Gandhi Government Engineering college, Surat.



DATE : '04/02/2022

EVENT NAME: Expert Lecture on “**Organic something for nature**”



DATE : '08/03/2022

EVENT NAME: Expert Lecture on “**Women Empowerment**”

- We have celebrated 73rd Republic Day on January 26, 2022 at GPG Surat. The day holds importance because the Constitution of India came into force and India became a sovereign state on January 26, 1950. While India gained independence from the British Raj in 1947, it was this day that India became a republic.
- This year, GPG Surat Campus has celebrated republic day with simplicity keeping pandemic situation in consideration.
- The function commenced with National Flag hosting followed by a speech of principal sir. All the staff members departed by singing national anthem.





DATE : '10/03/2022

EVENT NAME: **Thalassemia test** at GPG, Surat OF 5TH Semester Students.



DATE : '15/03/2022

EVENT NAME: **Self Defence training** at GPG, Surat.



DATE : '16/03/2022

EVENT NAME: **Tree Plantation** GPG, Surat.

STUDENT CORNER

Following students of 5th semester had actively participated in SSIP at institute level @ GPG, Surat.

- Project Title: **“Scrolling Message Display”** Guided By Mr. Manish K. Lad, Lecturer EC (GES Class II).

Prepared by Gandhi Keshvi Himanshubhai (196150311005), Kambli Zarna Gaurang (196150311009) and Limbachiya Aarchi Janakbhai (196150311012).



- Project Title: **“IOT Based Air Pollution Monitoring System using Arduino”** Guided By Mr. D. U. Patel, Lecturer EC (GES Class II).

Prepared by Chaudhari Sejalkumari Ratilal (196150311004) & Jha Sakshi Maharshi (196150311008).

