



RAJ KUMAR GOEL INSTITUTE OF TECHNOLOGY

5KM Stone Delhi-Meerut Road, near Raj Nagar Extension, Ghaziabad (U.P) 201003



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Patrons



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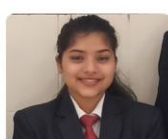
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VISION OF THE DEPARTMENT

To develop the Department into a full fledged Center of learning in various field of Electronics and Communication Engineering keeping in view the latest development in world.

MISSION OF THE DEPARTMENT

M1: To educate the students in Contemporary Technologies in Electronics and Communication Engineering.

M2: To educate the students in Electronics and Communication Engineering to meet the Industrial needs.

M3: To educate the students in Electronics and Communication Engineering to meet the Societal needs.

INDUSTRIAL VISIT TO DEKI ELECTRONICS LTD, NOIDA

On 24th of December 2021, 31 students of B. tech, ECE 2nd year of Raj Kumar Goel Institute of Technology visited Deki Electronics Ltd, Noida Uttar Pradesh. The students were accompanied by Mr. Sachin Tyagi and Ms. Hashmat Usmani.

About Deki Electronics:-

We got to know that its mainly makes capacitors. It has been producing high quality plastic film capacitors at its state of art automatic plant imported from Japan, Korea and Italy.

The present capacity is 27 Lac per day; it is the largest manufacturer of plastic film capacitor in India. It was interesting to know 27 Lac plastic film capacitors are manufactured per day. In Deki electronics different type of capacitors are manufactured named -Plain polyester / metalized polyester, plain polypropylene / metalized polypropylene, plain & metalized polypropylene mixed etc.





Polypropylene Film Capacitors



Deki's capacitors are exported to Europe, US, Hongkong, China, Middle East, Malaysia, Philippines and South Korea etc. Deki has been consistently introducing new type of Film capacitors in the market to meet the needs of the customers.

PLACEMENT DATA

S. No.	Name Of The Students	Name of company	Package Offered (Lakh Per annum)
1	Anushka Mishra	Nucleus Software	4.25
2	Deepanshi Srivastava	Nucleus Software	4.25
3	Abhisht Bindal	Nucleus Software	4.25
4	Swarnima Verma	Nucleus Software	4.25
5	Ujjawal Pandey	Nucleus Software	4.25
6	Nidhi Singh	Wipro	3.5
7	Richa Sharma	Wipro	3.5
8	Arpit Verma	Wipro	3.5
9	Megha Agrawal	Wipro	3.5
10	Avinash Trivedi	Wipro	3.5
11	Shristi Srivastava	Wipro	3.5
12	Shivendra Pratap	Wipro	3.5
13	Aditya Srivastava	Wipro	3.5
14	Vinay Tiwari	Wipro	3.5
15	Navendu Sharma	Wipro	3.5
16	Priyanshu	Wipro	3.5
17	Marepalli Sravana Kirtana	Wipro	3.5
18	Anushka Mishra	Wipro	3.5
19	Isha Saxena	Wipro	3.5
20	Pushpendra Srivastava	Wipro	3.5
21	Harshit Gupta	Wipro	3.5
22	Swarnima Verma	Wipro	3.5
23	Ankit Gupta	Wipro	3.5
24	Chhavi Rathore	Wipro	3.5

25	Abhisht Bindal	Wipro	3.5
26	Shreyash Sahu	Wipro	3.5
27	Shristi Srivastava	TCS	3.36
28	Riddhi Singh	TCS	3.36
29	Gargi Verma	TCS	3.36
30	Deepanshi Srivastava	TCS	3.36
31	Nidhi Singh	TCS	3.36
32	M.S.Kirtana	TCS	3.36
33	Ayushi Patel	TCS	3.36
34	Mansi	TCS	3.36
35	Ayush Mishra	Appinventiv Technolgies	3.6 - 4.2
36	Navendu Sharma	Appinventiv Technolgies	3.6 - 4.2
37	Sachin Yadav	Appinventiv Technolgies	3.6 - 4.2
38	Mohd. Wasiq	Appinventiv Technolgies	3.6 - 4.2
39	Akash Gupta	Apisero	5.1
40	Ayush Mishra	Apisero	5.1
41	Isha Saxena	TCS	3.36
42	Utkarsh Kumar	TCS	3.36
43	Vikas Kumar Dubey	Birlasoft Ltd.	3.6
44	Shreyash Sahu	MI Outsourcing Services Pvt Ltd.	3
45	Ayush Pandey	ALGOWORKS TECHNOLOGIES	3
46	Gargi Verma	Wipro	3.5
47	Himanshu Dubey	Wipro	3.5
48	Prashant Pandey	Wipro	3.5
49	Sachin Yadav	Wipro	3.5
50	Utkarsh Kumar	Wipro	3.5
51	Avinash Trivedi	TCS	3.36
52	Harshit Gupta	TCS	3.36
53	Avinash Trivedi	Motilal Oswal Financial Services	3.5

54	Suman Kumari	HCL Technologies	3.65
55	Sheetal Singh	Aryson Technologies Pvt Ltd.	1.8
56	Vikas Kumar Dubey	Netprophets Cyberworks	3
57	Hritik Soni	Sugal & Damani Group	4.6
58	Gaurav Kumar	Sugal & Damani Group	4.6
59	Yash Yadav	Mobcoder Technologies Pvt Ltd	3.2 - 3.6
60	Himanshu Dubey	NTT Data	3.5
61	Ayush Pandey	NTT Data	3.5
62	Riya Tomar	HCL Technologies	3.65
63	Jagriti Chaturvedi	NTT Data	3.5
64	Pushpendra Srivastava	NTT Data	3.5
65	Rana Pratap Singh	NTT Data	3.5
66	Sumeet Singh	NTT Data	3.5
67	Yash Yadav	NTT Data	3.5
68	Gargi Verma	Harman Kardon	5
69	Arun Kumar	Mobcoder Technologies Pvt Ltd	3.2 - 3.6
70	Ashutosh Prajapati	Cloud Analogy	3
71	Jai Singh Rana (On Hold)	Harmon Kardon	5
72	Ridam Bhalla	BYJU"S	6
73	Himanshu Mishra	Wipro HR Services India Pvt Limited	3.3
74	Arun Kumar	Wipro HR Services India Pvt Limited	3.3
75	Anand Tiwari	Wipro HR Services India Pvt Limited	3.3
76	Amar Singh	Wipro HR Services India Pvt Limited	3.3
77	Ashutosh Prajapati	Wipro HR Services India Pvt Limited	3.3
78	Amit Kumar	Wipro HR Services India Pvt Limited	3.3
79	Abhishek	Wipro HR Services India Pvt Limited	3.3
80	Chitransh Srivastava	SISL Infotech	3.6
81	Chitransh Srivastava	LIT India Pvt Ltd.	1.92
82	Surya Pratap Kushwaha	Amara Raja Batteries Ltd.	1.32

83	Md Taukir Ansari	Tech Mahindra	2.6
84	Riddhi Singh	Tech Mahindra	2.6
85	Himanshu Dubey	Tech Mahindra	2.6
86	Arun Kumar	Tech Mahindra	2.6
87	Anand Tiwari	Tech Mahindra	2.6
88	Kunal Panchal	Tech Mahindra	2.6
89	Ishika Verma	Tech Mahindra	2.6
90	Amit Yadav	Tech Mahindra	2.6
91	Vikram Singh	Tech Mahindra	2.6
92	Sintu Singh	Tech Mahindra	2.6
93	Uttkarsh Sanjay Kumar	JK International	1.56
94	Md Taukir Ansari	Bureau Veritas Global Shared Services Center	3
95	Ridam Bhalla	Vivo Mobile India Pvt Ltd.	3.6
96	Ashutosh Prajapati	Vivo Mobile India Pvt Ltd.	3.6
97	Akshat Gaur	Vivo Mobile India Pvt Ltd.	3.6
98	Manvinder Singh	Vidursoft	1.8
99	Priyanshu Joshi	Cool India	2.8
100	Divyanshu Singh	Ebbstone Consulting	1.2
101	Himanshu Mishra	TCS	3.36
102	Jyotsna Tripathi	Unicorn Denmart Limited	3.12

FACULTY TECHNICAL CORNER

Role of E-Skin or Electronic skin in today's scenario:-

Electronic skin is an artificial skin and it is a very thin electronic device that is attached to the human skin like a tattoo for measuring different parameters of the body like brain signals, heart activity, etc. It is developed in a laboratory & it replaces the skin for people who have suffered from skin shock, skin diseases, and skin burns otherwise robotic applications.

E-Skin is related to the human skin that is embedded through a sense of touch working on the skin. The designing of this can be done using thermostats, electronic measuring devices, pollution detectors, pressure gauges, microphones, cameras, EKGs, glucose sensors, etc.



Electronic skin or e-skin, may play an important role in next-generation prosthetics, personalized medicine, soft robotics and artificial intelligence (AI), say researchers.

Electronic skin is a material that mimics human skin in strength, stretch ability and sensitivity could be used to collect biological data in real-time.

“The ideal e-skin will mimic the many natural functions of human skin, such as sensing temperature and touch, accurately and in real-time,” said study author Yichen Cai from the King Abdullah University of Science and Technology in Saudi Arabia.

“However, making suitably flexible electronics that can perform such delicate tasks while also enduring the bumps and scrapes of everyday life is challenging, and each material involved must be carefully engineered,” Cai added.

Most e-skins are made by layering an active nanomaterial (the sensor) on a stretchy surface that attaches to human skin.

However, the connection between these layers is often too weak, which reduces the durability and sensitivity of the material; alternatively, if it is too strong, flexibility becomes limited, making it more likely to crack and break the circuit.

The team has now created a durable e-skin using a hydrogel reinforced with silica nanoparticles as a strong and stretchy substrate and a 2D titanium carbide MXene as the sensing layer, bound together with highly conductive nanowires.

“Hydrogels are more than 70 per cent water, making them very compatible with human skin tissues,” the researchers said.

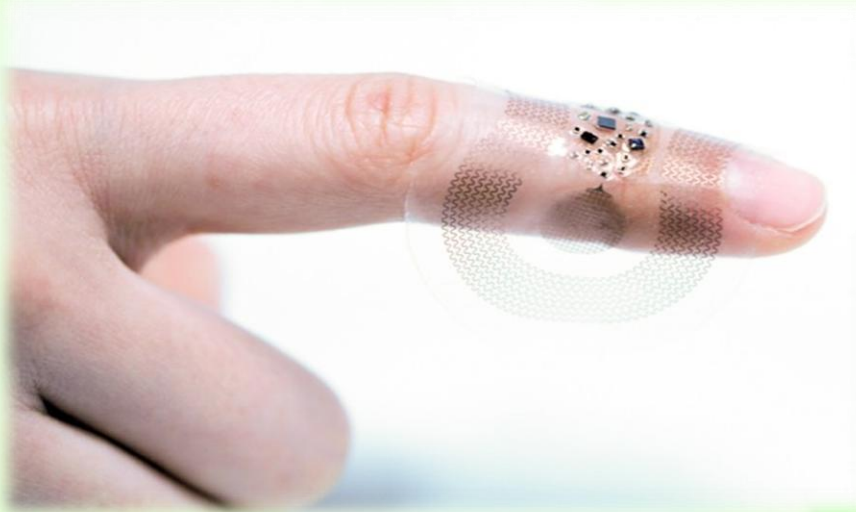
By pre-stretching the hydrogel in all directions, applying a layer of nanowires, and then carefully controlling its release, the team created conductive pathways to the sensor layer that remained intact even when the material was stretched to 28 times its original size.

Their prototype e-skin could sense objects from 20 centimetres away, respond to stimuli in less than one-tenth of a second, and when used as a pressure sensor, could distinguish handwriting written upon it. It continued to work well after 5,000 deformations, recovering in about a quarter of a second each time.

“It is a striking achievement for an e-skin to maintain toughness after repeated use, which mimics the elasticity and rapid recovery of human skin”.

Wear it and forget it

It is wearable devices present two types of challenge: chemistry problems in search of an engineer, and engineering problems in need of a chemist. It isn't easy to maintain contact between an electrode and a person, because skin stretches, wrinkles and bends as people move. Gels can hold the electrode in place, but not for long, because gels are aqueous and dry out over time.



A flexible wireless sensor for monitoring babies in neonatal intensive care units removes the need for tangles of wires, making it easier for parents to hold their infants.



Ms. Farah Naz
Assistant Professor, ECE

STUDENT TECHNICAL CORNER

Needs of IoT and Artificial Intelligence



What trends drive the Adoption of printed, flexible sensors? A Large part of this answer lies in the revolution brought forth by **Industrial IoT(IIoT)**, or Industry 4.0. Here, Real Time monitoring can be performed digitally by retrofitting such sensors to industrial equipments for predictive maintenance.

We are using Embedded Boards so that it becomes easier to achieve the outcomes of our project which is based on Automation.

Features including :-

- Highly Accelerated Graphics Performance.
- Impressive increase in data transfer rates.
- Native ethernet support that unleashes full bandwidth.
- Advanced security inside.

A Project based on Embedded system which will be the boost in the field of mechanical system is “**Mind-Controlled Prosthetic Arm**” by **ASHWINI KUMAR SINHA**.

At times during multitasking, you would have wished to have more than two hands attached to your body, which you could control using your mind, just like you control your natural hands.



But considering it as unrealistic and only belonging to the sci-fi movies, you would have immediately dismissed the idea. With the help of your Brain you can operate several body part with the help of Artificial Intelligence. By adding pneumatic Actuators, you can provide extra power to lift heavy loads without pushing any Button. All you need is brain power and computing Vision. This is Possible only because of AI, Computer vision and your Thoughts.

Not only this, Embedded systems and IoT is very helpful in Healthcare Monitoring systems. It is another example where you can wrap a flexible, comfortable temperature sensor around your arms or legs and monitor the healing process. This induces a change in temperature due to the increased blood flow.

In this field, monitoring systems are used in the compact electronics. With the help of a thin spatially arrayed temperature sensors (Thermistors, RTDs etc.) on the system makes tracking and packaging more efficient.

After Going through all the above innovations, we can conclude that the massive growth of Embedded system and IoT will surely increase the demand for sensors which are the necessity in AI.

This is expected that from 2022, thus leading to a processing of sensors it will be used in the wider section of conventional electronics. Also, the day when we adopt this technology, it will ease the needs of the market.



Nishant Awasthi
ECE, 3rd Year

ALUMNI SPEAK

Getting placed in the product based company has always been my focus and I am thankful to RKGIT that they gave an opportunity like this. I am a proud RKGITian. It helped me in developing positive approach towards my career. Even in this pandemic the CRC Department of RKGIT took great measures to make sure every student is placed in good companies.



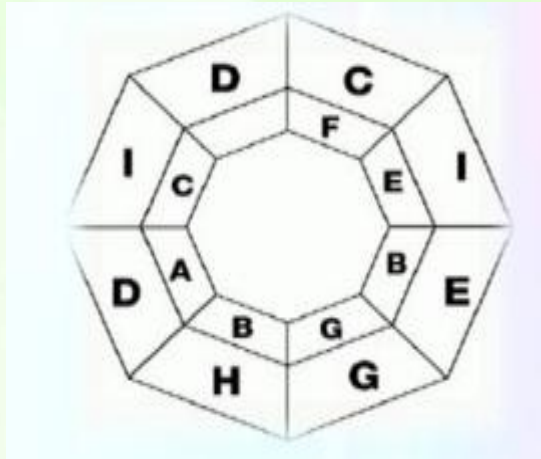
Riya Bajpai

Batch : 2017-2021

(Mirabilis Design Incorporation)

BRAIN TEASERS

1. Which letter is missing from the web?

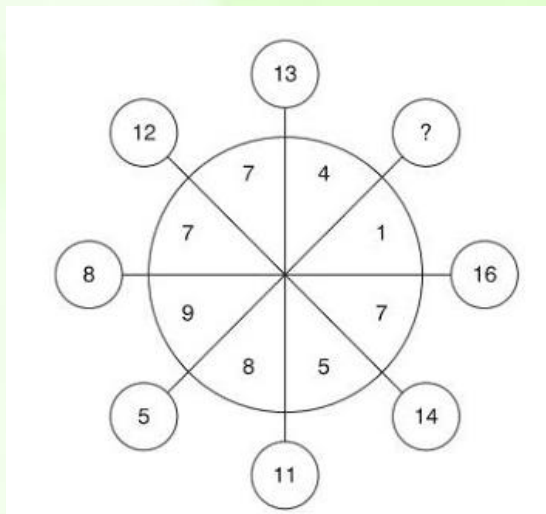


2. What is the time now if 2 hours later it would be half as long until midnight as it would be if it were an hour later?



3. A man stands on one side of a river, his dog on the other. The man calls his dog, who immediately crosses the river without getting wet and without using a bridge or a boat. How did the dog do it?

4. Find the missing number to replace the question mark



5. A line of 100 airline passengers is waiting to board a plane. They each hold a ticket to one of the 100 seats on that flight. (For convenience, let's say that the n th passenger in line has a ticket for the seat number n .) Unfortunately, the first person in line is crazy, and will ignore the seat number on their ticket, picking a random seat to occupy. All of the other passengers are quite normal, and will go to their proper seat unless it is already occupied. If it is occupied, they will then find a free seat to sit in, at random. What is the probability that the last (100th) person to board the plane will sit in their proper seat (#100)?