



BIOMED

A newsletter of Biomedical Engineering Department

Issued : April, 2019

Let us all be “ interview ready..!!!! ”

FACULTY DETAILS:

1. MR. RAKESH D. MOTKA, LECTURER, INCHARGE HEAD OF THE DEPARTMENT
2. MS. JIMISHA H. SUTHAR, LECTURER
3. MS. AARTI R. DALWADI, LECTURER
4. MS. MEGHNA M. PATEL, LECTURER
5. MS. NEELAM B. MODI, LECTURER
6. MS. SUCHITA D. AZAD, LAB ASSISTANT.



“As you walk into that interview hall, know that god is in control, Believe in yourself and give it your best”

The most important thing to landing a job is to ensure that you are fully prepared for the interview. By preparing, you will feel much more in control. You'll have anticipated what will get asked in the interview, you will have learnt so much about the business and you'll feel cool, calm and collected. Well nearly! To help the final year students in appearing for their interviews, an expert lecture was organized on 30th of March, 2019. An expert lecture on **Interview Ready** was delivered by Ms. Nirali Shah, Soft Skill Trainer, and Freelancing. The lecture was arranged to guide students how to face interview with confidence and what are the traits required for a perfect interview. Total 30 students participated in the expert lecture and benefitted from Ms. Nirali Shah's valuable inputs.



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HOSPITAL VISIT TO V.S. HOSPITAL, AHMEDABAD

Industrial exposure plays a very vital role in filling the curriculum gap, especially in Biomedical Engineering field. The theoretical aspects the students study are not enough until the students see the techniques and their applications practically. For this reason, in the final year of Diploma course in Biomedical engineering, we, at GPGA put more emphasis on hospital and industrial visits. As a part of this, one hospital visit was

organized in this term. The students visited V.S.hospital, Ahmedabad, on 26th and 27th of february., 2019. students were accompanied by Ms. M.V.Singh during the visit. Total 21 students of final year visited the hospital and gained practical knowledge about diagnostic, therapeutic as well as imaging equipments and their application areas.

BIOMEDICAL ENGINEERING INNOVATIONS

BRAIN COMPUTER INTERFACING (BCI)

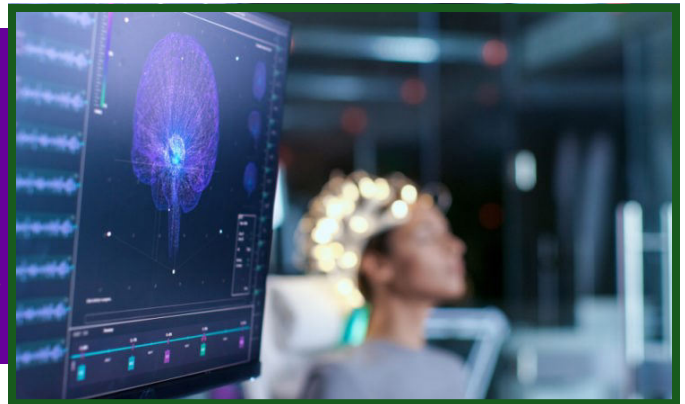
Brain-computer interfaces (BCIs) are devices that enable signals from the brain to direct external activity, such as moving a cursor or prosthetic limb. BCIs work by measuring the brain's electrical activity using a monitoring method called electroencephalography (EEG), which involves placing electrodes on the scalp surface. For individuals who have experienced a debilitating loss of motor control, the pursuit of this assistive technology by researchers offers a crucial ray of hope. Though brain-to-computer technology may sound futuristic, the first human to be successfully implanted with a BCI was way back in 2004, when a quadriplegic named Matthew Nagle received a device called BrainGate that allowed him to move a

cursor across a screen.

Since that momentous moment, the capabilities of modern BCIs have advanced to such an extent that a number of ethical questions have been raised, ranging from privacy to loss of humanity. For example, if a BCI device misreads an invasive thought and executes a harmful action — even if the user didn't intend to fully through with the action — how much responsibility can we ascribe to the user?

Thankfully, scientists are tackling these moral quandaries head-on. In 2019, scientists developed the first-ever noninvasive brain-computer interface, which will benefit the lives of para-

The combination of humans and technology could be more powerful than artificial intelligence. For example, when we make decisions based on a combination of perception and reasoning, neurotechnologies could be used to augment our perception. This could help us in situations such [as] when seeing a very blurry image from a security camera and having to decide whether to intervene or not.”



lysed patients and others with movement disorders. While BCIs are not particularly reliable in their current form, the ongoing work of biomedical engineers[1] is helping to improve accuracy and safeguard the wellbeing of users. As for the long-term impact of BCIs, the sky seems to be the limit. While these devices currently have the potential to do enormous good for people with serious motor disabilities, in the future, scientists believe they will be applied in the area of “human augmentation” — using the technology to improve human cognition as well as other abilities. According to Davide Valeriani, post-doctoral Researcher in Brain-Computer Interfaces at the Uni-

versity of Essex, BCIs could ultimately turn us into “cyborgs”:

“The combination of humans and technology could be more powerful than artificial intelligence. For example, when we make decisions based on a combination of perception and reasoning, neurotechnologies could be used to augment our perception. This could help us in situations such [as] when seeing a very blurry image from a security camera and having to decide whether to intervene or not.” Indeed, as Elon Musk's 2017 acquisition of the neurotechnology company Neuralink and subsequent plans for ambitious new mind-computer products demonstrate, BCI technology is set to continue advancing at a rapid clip.

STUDENT ACHIEVEMENTS

Sr. NO.	SEMESTER	ENROLLMENT NO.	NAME OF STUDENT	SPI	CPI	CGPA	GTU BRANCH WISE RANK (CPI WISE)
1	1	186140303031	NEMADE DEVANSHI	8.77	0	8.77	6
2	3	176140303032	PANCHAL RITU H.	9.37	8.61	9.37	2
3	3	176140303025	JOSHI MARGI H.	8.70	8.60	8.70	3
4	5	166140303025	PARMAR MANINI J.	9.80	9.71	9.71	1
5	5	166140303005	CHAHANA KALPAN P.	10	9.67	9.83	3
6	5	166140303029	PATEL DEVANSHI B.	10	9.50	9.69	6
7	5	166140303042	PUROHIT POOJAN HITESHKUMAR	9.40	8.93	8.94	10

CO-CURRICULAR ACTIVITIES

Sr. no.	Date	Activity	Organization	Area of study	No. of students
1	26/2/2019	Hospital visit	V.S.Hospital, Ellisbridge Paldi, Ahmedabad	DIAGNOSTIC, THERAPEUTIC AND IMAGING EQUIPMENTS	21
2	27/2/2019	Hospital visit	V.S.Hospital, Ellisbridge Paldi, Ahmedabad	DIAGNOSTIC, THERAPEUTIC AND IMAGING EQUIPMENTS	21
3	30/3/2019	Expert lecture	Ms. NIRALI SHAH, soft skill trainer, freelancing	“Interview ready”	30

Education is what remains after one has forgotten what one has learned in the school.