

Department of Biomedical Engineering  
Government Polytechnic for Girls, Ahmedabad

# Biomed

A newsletter of Biomedical Engineering Dept. at GPGA

Establishment year: 2009  
AICTE sanctioned intake: 60

## APRIL 2018 ISSUE

### Special points of interest:

- \* A HOSPITAL VISIT FOR FINAL YEAR STUDENTS
- \* INTERCOLLEGE EVENTS PARTICIPATION OF STUDENTS

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### Vision of the department:

Our vision is to nurture engineers who can comprehend the ethical, social, and economic implications of their work by imparting quality education through integration of engineering and medical sciences for the improvement of human health care."

### Mission of the department:

To create a free and open learning environment that fosters the intellectual growth of students.  
To provide skill based technical education.  
To enable students to be sensitive towards the ethical issues of medical industry  
To prepare students for confronting medical challenges by applying engineering principles.

## A HOSPITAL VISIT TO COLUMBIA ASIA HOSPITAL, AHMEDABAD



The final year students of Biomedical Engineering Department, at GPGA, visited to the renowned Columbia Asia Hospital, Ahmedabad, on 7th April, 2018. Total 30 students were accompanied by two faculty members of the department, Ms. J.H. Suthar and Ms. M.V. Singh. Aim of this visit was to provide practical exposure to the diagnostic and therapeutic equipments and learn about their features as well as their application areas. The head of biomedical engineering department at Columbia

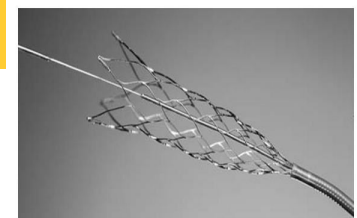
Asia Hospital, Mr. Nilesh Modi was kind enough to allow the students to visit important and normally restricted areas of the hospital. The students were lucky enough to witness some ongoing diagnostic and therapeutic procedures which allowed them to understand the operating procedures of some of the major equipments.

## Let's learn something new: The Shape-shifters...

A shape-memory alloy (SMA) is an alloy that can be deformed when cold but returns to its pre-deformed ("remembered") shape when heated. It may also be called memory metal, memory alloy, smart metal, smart alloy, or muscle wire . The two most prevalent shape-memory alloys are copper-aluminium-nickel and nickel-titanium (NiTi), but SMAs can also be created by alloy-

ing zinc, copper, gold and iron. Although iron-based and copper-based SMAs, such as Fe-Mn-Si, Cu-Zn-Al and Cu-Al-Ni, are commercially available and cheaper than NiTi, NiTi-based SMAs are preferable for most applications due to their stability and practicability. Shape-memory alloys are applied in medicine, for example, as fixation devices for osteotomies in orthopaedic

surgery, as the actuator in surgical tools; active steerable surgical needles for minimally invasive percutaneous cancer interventions in the surgical procedures such as biopsy and brachytherapy, in dental braces to exert constant tooth-moving forces on the teeth, in Capsule Endoscopy they can be used as a trigger for biopsy action.



## STUDENT ACHIEVEMENTS

SR. NO.	SEMESTER	ENROLLMENT NO.	NAME OF STUDENT	SPI	CPI	CGPA	GTU BRANCH WISE RANK (CPI WISE)
1	1	176140303025	JOSHI MARGI H.	8.7	8.7	0	1
2	1	176140303032	PANCHAL RITU H.	8.4	8.4	0	6
3	1	176140303007	BHURA RAZINA AIYUB	8	8	0	10
4	3	166140303025	PARMAR MANINI J.	9.93	9.79	9.93	1
5	3	166140303005	CHAHANA KALPAN P.	10	9.61	10	2
6	3	166140303029	PATEL DEVANSHI B.	9.67	9.37	9.67	5
7	5	156140303059	VASANI KHEVNA V.	10	9.73	9.83	1
8	5	156140303008	DERASARI AISHWARYA B.	10	9.59	9.79	2
9	5	156140303050	SHAH AYUSHI H.	9.6	9.49	9.52	3

## STUDENTS EXTRA CURRICULAR PARTICIPATION DETAILS

SR. NO.	Date	ENROLLMENT NO.	NAME OF STUDENT	Name of Event	Category	Organized by
1	13,14 Feb, 2018	156140303031	PATEL NEHAL D.	TALASH in search of Excellence	Treasure hunt	Silver Oak College
2	13,14 Feb, 2018	156140303059	VASANI KHEVNA V.	TALASH in search of Excellence	Treasure hunt	Silver Oak College
3	13,14 Feb, 2018	156140303008	DERASARI AISHWARYA B.	TALASH in search of Excellence	Treasure hunt	Silver Oak College
4	13,14 Feb, 2018	156140303050	SHAH AYUSHI H.	TALASH in search of Excellence	Treasure hunt	Silver Oak College
5	March 2018	156140303031	PATEL NEHAL D.	Hands on with Medical equipments	-	UVPCE

## CO-CURRICULAR ACTIVITIES

Sr. no.	Date	Activity	Organization	Area of study	No. of students
1	7/4/2018	HOSPITAL VISIT	("Columbia Asia", Thaltej, Ahmedabad)	DIAGNOSTIC AND THERAPEUTIC EQUIPMENTS	30