



# Gandhinagar Institute of Technology

A Report on GTU Zonal TechFest

“TechXtreme 2018”

(20<sup>th</sup> & 21<sup>st</sup> Feb 2018)

Gandhinagar Institute of Technology organizes various co-curricular activities in accession with being focused on regular academics for exploring and executing skills and ingenuity of technical and management students. With the aim of bringing the best talent of Gujarat on one platform, competitions were formulated in State Level GTU Zonal Techfest with specific focus on Technology and Management. The inaugural function was held at Seminar Hall of GIT at 9:30 am on 20<sup>th</sup> Feb 2018.

Mr. Ajay Umat, editor of NavGujarat Samay was the chief guest of the function. His rapier wit left the audience in awe when he quoted *“I am the guy who had evolved from ancient newspapers to digitization.”* He spoke about Dr Vikram Sarabhai’s dream of establishing engineering wonders around today’s Gujarat University Tower. He addressed the students that Techfest is a chance to learn and showcase their talents as well as their inner self to other youngsters who harbour dreams similar to them. He appreciated different activities like women empowerment, digital India and others initiated under the active direction of our honorable Prime Minister Shri Narendra Modi. He stressed that GIT is a platform which has provided not only career opportunities but also managed to replicate the culture found on foreign universities where not only the students who passed are competent but also the ones who dropped out are innovative. He, however, advised the participants that knowledge and skill alone do not make human resources. He advised them to always put their dreams into practice and not to be deterred if they failed because *“failure is an event and not a person”*. Urging them to develop a positive attitude, he said; *“remarkable people do things that are different or unique, believe you can do it, and you will do it”*. He also congratulated GIT students, staff and management for various activities undertaken and outperforming results.

Shree. Ghanshyambhai Thakkar, Hon’ble Trustee of the Institute appreciated the role of students for the successful execution of the event. He added that Techfest is an excellent way of increasing one’s knowledge bank and to create ideas. He expressed his gratitude towards the faculties and students for organizing such unique events in GIT and thereby securing a remarkable place, despite being located at the outskirts of the city.

More than 3000 students from over 100 colleges across Gujarat participated in TechXtreme-2018. TechXtreme-2018 encompassed more than 40 activities of great interest and technical significance for the students of various branches of Diploma & Degree Engineering and MBA & MCA. It covered various events like **Auto-Psy** - assembly & disassembly of I.C. Engine, **Junkyard Wars**, **Death Race**, **Tech Roadies**, **Droid Hockey** - based on robot wrestling, **Solar Splash** - solar car race & soccer, **Dream Machine** - machine re-winding, **Dare To Code**, **Master’s App** - challenge based on prototype level of app & digital marketing concepts, **Web - E - Thon** - live web site design challenge, **Code Strom**, **Breakup Bridge** - analysing moving load and seismic capacity of model, **Life of Pile**, **Math-O-Mania**, **Math Leaper**, **AD-Mad Show** making interesting advertisements with drama, **Quiz O Mania** - quiz on scripture management, **Bech K Dikha** - based on interpersonal communication skill, E-Cell **Brain-A-Thon** innovation using design engineering, workshops like **Internet of Things**, **I.**

**C. Engine, Amazon Web Services, Arudino and 3D printing**, which helped the participants to have real-time learning experience.

Dr N M Bhatt, Director, appreciated this platform of budding engineers, architects and managers to showcase their creativity, techno-managerial skills and multi-faceted talent. He emphasized the need for overall development of students in addition to regular teaching, for which GIT organizes various activities like blood donation camp, sports competition (IMPULSO), cultural fest (JAZBA), and seminars throughout the year. He shared that it was a matter of pride and honour to have such a large number of students participating from other institutes in TechXtreme-2018.



Felicitation Moment



Lightening Lamp



Welcome Address by Dr N M Bhatt



Inaugural Address by Mr. Ajay Umat

### **Events of Robotics-Mechanical Department**

**Battle of Bots** was the event where two robots were made to fight with each other. Warrior attitude, presence of mind and technical skills of participant's teams were at stake in this event.

**Robo Puzzle** was the event based on the combined concepts of famous childhood video games Pacman and Catacomb-3D. Robots and their thrust, to burst balloons while facing different obstacles present on arena made this event very interesting.

**Death Race** event made robots to hustle through hurdles present on track that too in minimum possible time! Participants had to make viable robots which can withstand difficulties with as much as speed as possible.

**Droid Hockey** event followed the unique concept of modern version of game hockey, "Ice Hockey". Participant had to build the robot with hitting mechanism to hit the ball and score as much as possible.

**Junkyard Wars** was the event based on the concept "Best from waste". Participant teams had to create useful mechanisms from the scrap provided to them. This event tested basic engineering skills like imagination and creativity of participants.

**Cad Cracker** was the event which tested one of the basic concepts of mechanical engineer, "Designing skill". In this modern era where in place of thinking outside the box, getting rid of the box and doing innovations is key to success. This event inspected level of uniqueness of participants.

**Auto-Psy** was the event based on one of the very aspiring prime mover of engineering world, "Internal Combustion Engine". As they say, one who is curious enough to make it apart and skilled enough to assemble it back like before is a real engineer. Participants had to do the same with engines in this event.

**Hydraulic Arm** was the event based on unique concept of generating power from unconventional source like "Water"! Participants had to complete different tasks of subsequent rounds using "Hydraulic arm".



Auto Psy



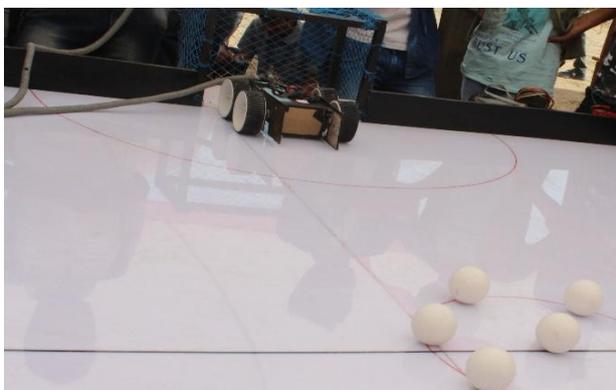
Hydraulic Arm



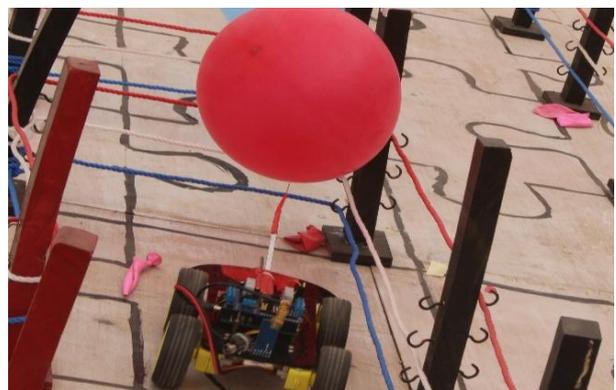
Battle of Bot



Death Race



Droid Hockey



Robo Puzzle

## Events of Electrical and Electronics & Communication Department

**Dream Machine** was a core electrical event in which participants faced hands on challenge to rewind an induction motor. The experience not only boosted their confidence but also served as a fabulous learning experience for them.

**Solar Splash** event gave all the participants a chance to check their engineering skills on the renewable side from basic theory to core practical. The key element of this event was the designing of a solar car which necessitated the aspect of critical thinking.

**The Circuit Challengers** event was about testing the basic skills of the teams which is required in each and every stage of electrical engineering. The event consisted of three rounds and in each round the level of complexity was increased.

**LASER Warfare** was an event inspired from first person shooting virtual games. The participants were given wearable gears and laser embedded guns to eliminate their opponents. The students engineered all the game mechanics and seamlessly used software and hardware integration.

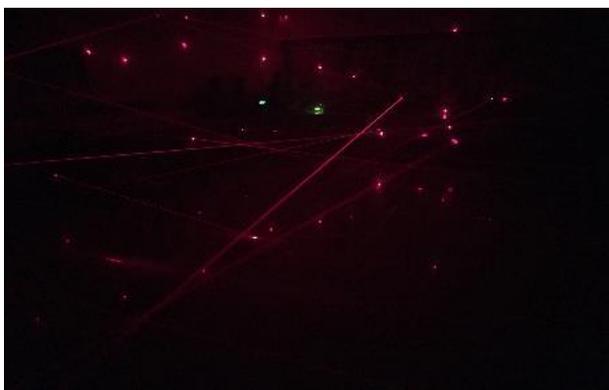
**TechRoadies** was the event in which the participants had to perform tasks and use their technical knowledge to perform them. The event consisted of three Rounds. In the first round participants had to perform tasks in which they had to complete the wire loop without getting a shock. In the second round they had to cross the LASER maze and open the box to proceed to the next round. In the third round, they had to diffuse an Arduino coded bomb to win the whole event.



Dream Machine



Solar Splash



Tech Roadies



Laser Warfare

## Events of Civil Department

**Breakup Bridge** was model making event in which participants were asked to design and construct through (upper) truss bridge using Pop sticks and adhesive material. Moving load and seismic capacity of prepared model was analysed.

**Life of Pile** was model making event based on soil characteristic on pile foundation, in which participants were asked to design and construct pile and pile cap using Pop sticks and adhesive material. Strength of same was checked using gauge system under various soil conditions.

**Artifice** was event designed for analysing the capacity of participants for planning a residential building by considering green building concept by preparing prototype of their planned residential building.

**Colrefs** was an event in which participants had to build sustainable structure model in predefined area with the help of wooden blocks of different size and shape.

**Traffica** was an event in which participants were asked to plan transportation system in given area. Prototype of same was also prepared using various twists.



Colrefs



Breakup Bridge



Traffica



Life of Pile

### Events of Computer Engineering and Information Technology Department

**Dare to Code** was an event in which participants' code either with a blind fold on their eyes or monitor screen turned off. The event mainly tested concentration, accuracy, programming skills and visualization power.

**Dexter** was a computer based detective event in which participants were provided some clues to find the hidden treasure or to recognize the criminal. To complete the given task, specific time limit was given and at last they completed the task in thrilling way by solving fabricated murder case with the help of cyber clues.

**Code Quest** was an individual event where the participants had to play treasure hunt to find QR code and after scanning, they had to complete the assigned coding task.

**Design Your Dream** was a team event where participants had designed logo using photoshop/ corel draw/ GIMP. They made LOGO, T-Shirt Design and Poster based on different themes.

**Code Strom** was an individual event where a set of logical or mathematical problems were given to participants and consequently they wrote computer programs in language like C, C++.

**Web - E - Thon** was a web development (Front end+ Back end) based event. Here participants designed a web site using HTML, CSS, PhpMyadmin, on various given themes.

**Master's App** was a team event where participants came with their presentations on a particular priorly given topic to develop app on it along with advantages and disadvantages of app. They also made prototype of their app along with digital marketing concepts.



Dexter



Master's App

### Events of Mathematics Department

**Math Spinner** was an individual event consisting of three rounds combining logical maths with traditional fun game of dart and archery. Students used their basic knowledge of maths to solve the questions given and the best performer won the title of math spinner.

**Math Leaper** was an event consisting of two rounds, first round was SOLVE, SEARCH & SHOW and the other was HOP SCOTCH. In each round, the students were given Mathematics based questions and to crack the given problem, the students had to explore richness and beauty of Mathematics. This event proved that, Mathematics is a game of logical thinking.

**Math Twister** was about numbers and logical thinking. Students actively participated in the Math Twister event. The participants have performed energetically.

**Math-O-Mania** was an event of well-known childhood games with essence of critical thinking and mathematical logic. This was a group event containing three rounds like Fox Jumping, Lemmon & Spoon race, sack race, Langadi race and Game of Seven Stone (Satoliya). Huge number of students were participated in this event enthusiastically to enhance their ability to crack the tricky questions quickly.



Math Twister



Math O Mania



Math Leaper



Math Spinner

### Events of MBA Department

**Ad-Mad Show** event was about making interesting advertisements. In this event, participants of various colleges had to design logo, punch line and jingle based on the theme given to them. They also had to present drama on the spot in a group.

**Quiz-O-Mania** was an event that had a collection of many interesting rounds ranging from elimination, rapid fire, audio Visual aids and memory retention. Quiz was selected based on scripture management like, Shrimad Bhagwad Geeta, Chanakyaniti etc.

**Bech-K-Dikha** event showcased the ability of speaking skills, negotiation power, group management skill and it helped to build the interpersonal skills. In this event participants were given virtual products on the spot and they had to sell it.

**Brain-A-Thon** was an event in which participants had applied philosophy of design thinking and design engineering. Ideas were evaluated based on their efficiency and innovation.



Bech K Dikha



Brain A Thon

### GTU Innovation Council Events

**IDP Expo** was an event based on poster presentation of final year projects of the industry problems being solved by student teams. An expert from industries were invited to judge the event and they had guided them about the scopes and applications of their projects in future.

**India Impact** was an event to know why, how and what industries / startups in india replicate foreign model, add Indian touch and strategies to it and flourishes. It is an event of research methodology.

## LAN Gaming Events

**Counter-Strike** was series of multiplayer first-person shooter video games in which teams of terrorists and counter-terrorists respectively battle to perpetrate an act of terror (bombing, hostage-taking) and prevent (bomb defuse, hostage rescue) it.

**FIFA 11** was a soccer simulation game. It was played in multiplayer mode (One v/s One) where each player can decide their own team.

**NFS Most Wanted** was one of the most sensational car racing games. To win the race player has to outsmart its rival.

**Mini Militia** was a multi-player army shooting game. One player was combat with upto 6 players via LAN and up to 15 players with the local Wi-Fi hotspot.

## Valedictory Function and Prize Distribution

The second day of the TechXtreme-2018 arose with much heightened spirit of the winning events. To conclude the event, valedictory ceremony was organized. It was an occasion to honour the achievers of various challenging, innovative and skills oriented events. The seminar hall was packed with participants eagerly awaiting for results of competitions. It was graced with the presence of Shree Ghanshyambhai Thakkar-Trustee, Shree Haresh Rohera-Trustee and Dr N M Bhatt-Director. To appreciate and encourage the students, the total prize of Rs. 2,00,000 was given to motivate the winners and runners up.



Celebration of Success



Prize Distribution by Shree Ghanshyambhai Thakkar



Prize Distribution by Shree Haresh Rohera



Prize Distribution by Dr N M Bhatt



Team TechXtereme 2018

“A leader is someone who creates an event and the team members essentially bring life to it” No event can shape without a hardworking leader. It was the dedication and enthusiasm of the conveners Prof. Amit Patel, Prof. Mitul Maniar, Prof. Raxit Jani and Prof. Purv Mistry who successfully coordinated the whole event under the patronage of Dr N M Bhatt, Director. Above and beyond, one should not forget the backbone of this grand fest – student event co-ordinators and volunteers, faculty coordinators, campaigning, web development and hospitality team who went an extra mile and worked their tail off and made this dream a reality. Mr. Dhaval Shah and his admin team supported in a congratulating way. It has been rightly said by Henry Ford that "If everyone is moving forward together then success takes care of itself".

### Press Coverage Clippings

**સિટીબીટ Ahmedabad Samay 3**

**થૂકશો નહીં**

**ઇનોવેશનનું સેલિબ્રેશન**

સાંઘીભાગર ઇન્ફોર્મેશન ટેકનોલોજીમાં સુદીર્ઘ ગોઠવણ હેઠળેકર 'ઇનોવેશનનું સેલિબ્રેશન' નું સંસ્કરણ કરવાનું છે. આ કાર્યક્રમમાં ધા જેટલી ટેકનિકલ એક્ટિવિટીમાં સુડન્ટ્સ ભાગ લઈ રહ્યા છે. એન્જિનિયરિંગ અને એમપીએના સુડન્ટ્સે આ ફેસ્ટિવલમાં ભાગ લીધો હતો. સુડન્ટ્સ માટે અહીં જકાર્ડ વોર્સ, ડેક રેસ, ટેક સોલિસ, ડ્રોહ્ડ કોર્સી, સેલ્લર કાર્ડ રેસ, ડેક ટુ ટોડ, માસ્કઝ વેબ એલેન્ગ, સીડ એન્ડ, ડેક અને માર્કેટિંગ કમ્પેટિટિવ, વેબ ઇ થોન, લાઇવ એક પાયા, નાચ એ મિલિય, ડ્રામા અને ધર્મીય કમ્પિટિશન જેવી ઇવેન્ટ્સ યોજાઈ હતી. આ ફેસ્ટમાં મિડેનકલ, ટેકનિકલ, કમ્પ્યુટર, મિલિય અને ઇવેન્ટ્યુનિકસ જેવી એન્જિનિયરિંગ કાર્યના સુડન્ટ્સે ભાગ લીધો હતો. આ સમી સુડન્ટ્સ માટે ઇન્ટરવેન્ટ ઓફ ક્રિસ, અભયી એન્જિનિયરિંગ અને સેલેક્શન ડેન જર્નલ જેવી વાર્ષીક પદ યોજાઈ હતી. આ ફેસ્ટિવલનું ઉદ્ઘાટન 'ભાવજીવરાલ

સમર્થ'ના ટીમી સમય ઇમાના કરેને કરવાનું હતું. આ કાર્યક્રમ સંસ્થાના ડાયરેક્ટર ડો. એન એન ભટ્ટ તથા કોષ્ટેવના ડેપુટીએ હાજરીમાં હોદેરા,

ઇનજિનિયરિંગ ડાયરેક્ટર ટેમ્પર પ્રધાનમણી શાહ, મિલિયમણી સોહેરા અને ઇન્ફોર્મેશન ટેકનોલોજી ડાયરેક્ટર ડો. સુભાષી

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GTU ટેકફેસ્ટ | 40 જેટલી ટેકનિકલ-નોન ટેકનિકલ ઈવેન્ટમાં 3 હજાર સ્ટુડન્ટ્સે ભાગ લીધો

# સ્ટુડન્ટ્સે બનાવેલા રોબોટ્સ આગમાંથી થયા પસાર, હાઈડ્રોલિક પ્રેસરથી ઉપાડ્યાં ગ્લાસ

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી(જીટીયુ)ના ગાંધીનગર અને અમદાવાદ ઝોનના ટેકફેસ્ટનો ગઈકાલે ગાંધીનગર ઈન્સ્ટિટ્યૂટ ઓફ ટેકનોલોજી(જીઆઈટી) ખાતે પ્રારંભ થયો હતો. 40 જેટલી ટેકનિકલ અને નોન ટેકનિકલ ઈવેન્ટમાં 3 હજાર વિદ્યાર્થીઓએ ભાગ લીધો હતો. ટેકફેસ્ટમાં યોજાયેલ રોબોટિક્સ ઈવેન્ટ સ્ટુડન્ટ્સ મોટી સંખ્યામાં ભાગ લીધો હતો. કુસ્તીમાં જે રીતે બે પહેલવાન વચ્ચે ક્રીકેટ કી ટક્કર થાય છે. તેવી રીતે જીઆઈટી ખાતે રોબોટ વચ્ચે ફાઈટનું આયોજન કરાયું હતું. લોખંડની સ્ટીલ બોટી સાથે સ્ટુડન્ટ્સે સામેવાળા રોબોટને તોડી શકાય તેવા ફીચરવાળા રોબોટ મેદાને ઉતાર્યા હતા. રોબોટને પાવર આપવા માટે કારમાં યુગ્મ થતી બેટરીથી રોબોટને ફુલી પાવર સપ્લાઈ કરવામાં આવ્યો હતો.

**રોબોટિક્સ ઈવેન્ટ** | સ્ટુડન્ટ્સે બનાવેલા રોબોટ્સ વચ્ચે ફાઈટ, કારની બેટરીથી અપાયો પાવર સાપ્લાય



રોબોટિક્સ ઈવેન્ટમાં યોજાયેલ સ્ટુડન્ટ્સે બનાવેલા રોબોટને મેદાને ઉતાર્યા હતા. જીઆઈટી ખાતે બનાવેલા ભારત હડવસભાષા ઓફ રોડ પર સ્ટુડન્ટ્સે પાકી, ખાડાઓ અને આગ પર રોબોટને ચલાવ્યા હતાં. આગ પરથી પ્રસાર કરવા માટે સ્ટુડન્ટ્સે રોબોટને ફાયરરુક બનાવ્યું હતું. જેમાં ઘણા રોબોટ બંધ થઈ ગયા હતા જ્યારે ઘણા પાર ઉતર્યા હતા.

## 'રોડિંગ' માં સ્પર્ધકોની એક ભૂલથી લાગતો કરંટ!

રોડિંગ ઈવેન્ટમાં સ્ટુડન્ટ્સની મેન્ટલી અને ફિઝિકલ ફિટનેસ જાણવા માટે રોડિંગમાં તેમને કોર્સ વાચર સહાય વગર ગ્રોજ રાઈન્ડમાંથી પ્રસાર કરવાનો ટાસ્ક સ્પાયો હતો. જ્યારે વાચર રાઈન્ડને ટચ કરે ત્યારે તેનો કરંટ ટીપના અન્ય પાર્ટનરને લાગતો હતો. જેમાં ઘણા સ્ટુડન્ટ્સની પરિણામ થઈ હતી, ડરને કારણે ઘણા સ્ટુડન્ટ્સે આ ઈવેન્ટને અપૂર્વી છોડી હતી, જ્યારે ઘણા સ્ટુડન્ટ્સે સફલેસફલી પાર કરી હતી.



## ઈન્જેક્શન માં પાણી ભરી અપાયું હાઈડ્રોલિક પ્રેસર

ઈન્જેક્શનમાં પાણી ભરીને તેના દ્વારા જનરેટ થતા હાઈડ્રોલિક પ્રેસરથી સ્ટુડન્ટ્સને પાણીના ગ્લાસ એક સ્પાયોથી બીજા સ્પાયો ઉપાડવાનો ટાસ્ક સ્પાયો હતો. જેમાં સ્ટુડન્ટ્સે પોતાની કૌશલ્ય અને એન્જિનિયરિંગમાં ભણાવાતા હાઈડ્રોલિક પ્રેસરના સિદ્ધાંતોને પ્રામાણ્ય રાખી રોબોટ બનાવ્યા હતા.



Divyabhaskar - 21.02.2018

# જી.આઈ.ટી. ટેકફેસ્ટમાં ટેકનિકલ સાથે નોન ટેકનિકલ ઈવેન્ટ છવાઈ

ટેકફેસ્ટમાં ૧૦૦ કોલેજનાં ૩૦૦૦ સ્ટુડન્ટ્સે પાર્ટિસિપેટ કર્યું હતું

યંગસ્ટર્સમાં છુપાયેલી એબિલિટીને બહાર કાઢવા માટે વિવિધ કોલેજિસમાં એન્યુઅલ ફક્શનલ આયોજન કરવામાં આવતું હોય છે જેના લીધે યંગસ્ટર્સ પોતાના ઈન્ટર ટેલેન્ટને બહાર લાવતા હોય છે જેના અંતર્ગત ગાંધીનગર ઈન્સ્ટિટ્યૂટ ઓફ ટેકનોલોજી ખાતે ઝોનલ ટેકફેસ્ટ ઉજવવામાં આવ્યો હતો જેમાં ગુજરાતની જુદી જુદી ૧૦૦ કોલેજનાં ૩,૦૦૦ જેટલા સ્ટુડન્ટ્સે પાર્ટિસિપેટ કર્યું હતું જેમાં ડિગ્રી અને મેનેજમેન્ટની વિવિધ ૪૦ જેટલી ટેકનિકલ અને નોન ટેકનિકલ ઈવેન્ટ્સ યોજવામાં આવી હતી. જેમાં ઓટો-સાય, ૩૨-ટુ-કોડ, વેબ-ઈ-થોન, ભેચ કે ટિપ્પા, કિવઝ-ઓ-મેનિયા, સોલર સર્વેશ જેવી યુનિક ઈવેન્ટ્સ યોજવામાં આવી હતી. આ પ્રસંગે જી.આઈ.ટીનાં ડિરેક્ટર ડૉ. એન.એમ. ભટ્ટએ સ્ટુડન્ટ્સની શક્તિ અને આવડતને વખાણી હતી વધુમાં તેમણે કહ્યું હતું કે આ પ્રકારની ઈવેન્ટ્સને લીધે સ્ટુડન્ટ્સમાં ઓવરઓલ ડેવલપમેન્ટ થાય છે.



## રોબો પઝલ

પેકમેન જેવી વીડિયો ગેમને કેન્દ્રમાં રાખીને તેચાર કરવામાં આવેલ આ ગેમમાં રોબોટથી કુગ્ગા કોડવા અને અવરોધોની સામે પણ પોતાના ગોલ સુધી જે રોબોટ પહોંચા પહોંચે તેને વિજેતા તરીકે જાહેર કરવામાં આવ્યો હતો.



## બ્રેક અપ બ્રિજ

બ્રેક અપ બ્રિજમાં સ્ટુડન્ટ્સે પોપસ્ટિકસના ઉપયોગથી એક નાના બ્રિજનું નિર્માણ કર્યું હતું અને તે બ્રિજ ૪ કિલોથી વધારેનું વજન ઝીલી શકે તે બ્રિજને આગળના રાઉન્ડમાં મોકલવામાં આવે છે અને જે બ્રિજની મજબૂતી વધારે સારી હોય તેને વિનર પ્રાઈઝ આપવામાં આવ્યું હતું.



## ડેથ રેસ

આ એક એવી ગેમ હતી જેમાં રોબોટિક્સ કાર વિવિધ અડચણો વાળા રસ્તાને પાર કરીને સમયમાં રસ્તો પૂરો કરે ત્યારે તેને બીજા રાઉન્ડમાં સ્થાન મળે અને છેલ્લે જે રોબોટે સૌથી સમયમાં સમયમાં રસ્તો પૂરો કર્યો હોય તેને વિનર પ્રાઈઝ આપવામાં આવ્યું હતું.

Sandesh - Ahmedabad City Life - 22.02.2018



Gujarat Samachar Plus - 23.02.2018