



"THIS VIRUS
WILL BE
FORGOTTEN
LIKE ANY
OTHER"

**The Review for the month
July**

The review for the month July
is with #8079 River
Robotics...

**The Animal for the month
July**

The animal for the month July is
called Bald Uakari...



EDITOR'S NOTE

After the Regional, we are all stuck in our houses. As FMWill, we thought "how can we work more efficiently?" Here we are with the first issue of "Insight": **The capacity to gain an accurate and deep understanding of someone or something.** We wanted to make a series of magazines where you can have fun while reading and also learn new information. We had a lot of fun preparing it, cheers!

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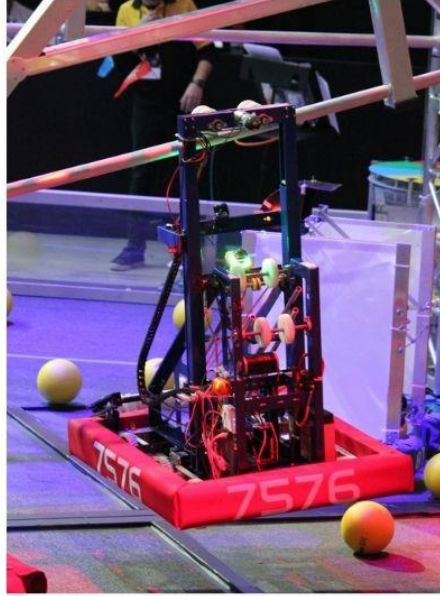
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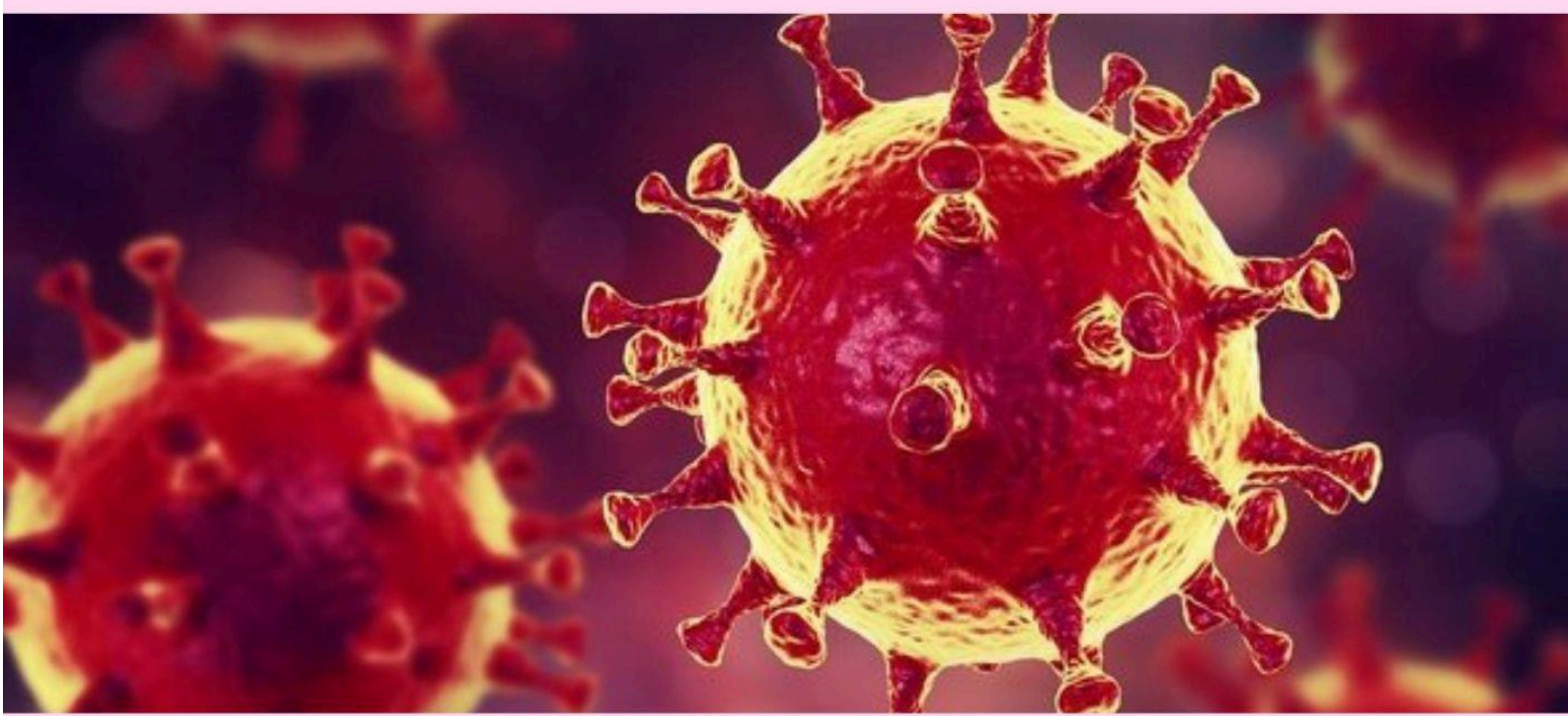
ALL ABOUT COVID-19

WHAT COULD YOU DO
TO PREVENT GETTING
INFECTED AND TO
SLOW DOWN THE
TRANSMISSION OF
COVID-19?

HOW TO USE A
MASK PROPERLY

YOU CAN CHECK WWW.WHO.INT FOR MORE INFORMATION

WHAT IS COVID-19?



Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

The best way to prevent and slow down the transmission is being well informed about the COVID-19 virus, the disease it causes and how it spreads. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow). At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments.

COVID-19 AFFECTS DIFFERENT PEOPLE IN DIFFERENT WAYS. MOSTLY, INFECTED PEOPLE WILL DEVELOP MILD TO MODERATE ILLNESS AND RECOVER WITHOUT HOSPITALIZATION.

MOST COMMON SYMPTOMS:

fever
dry cough
tiredness

LESS COMMON SYMPTOMS:

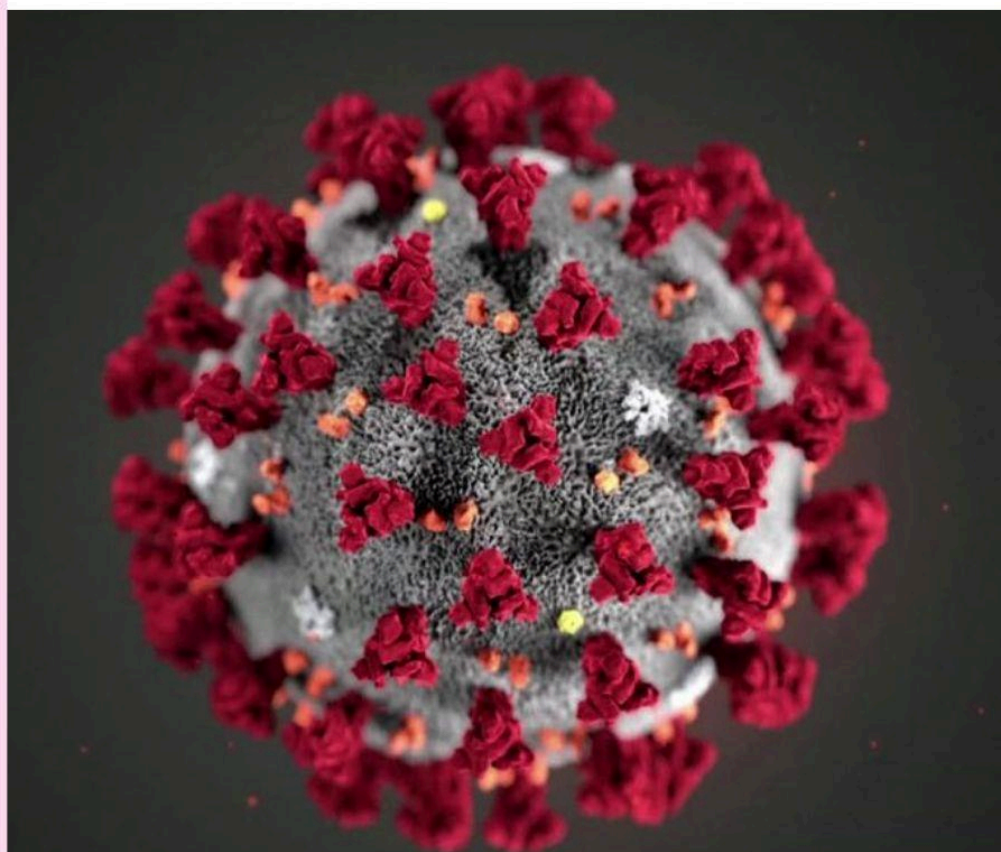
aches and pains
sore throat
diarrhoea
conjunctivitis
headache
loss of taste or smell
a rash on skin, or
discolouration of fingers or toes.

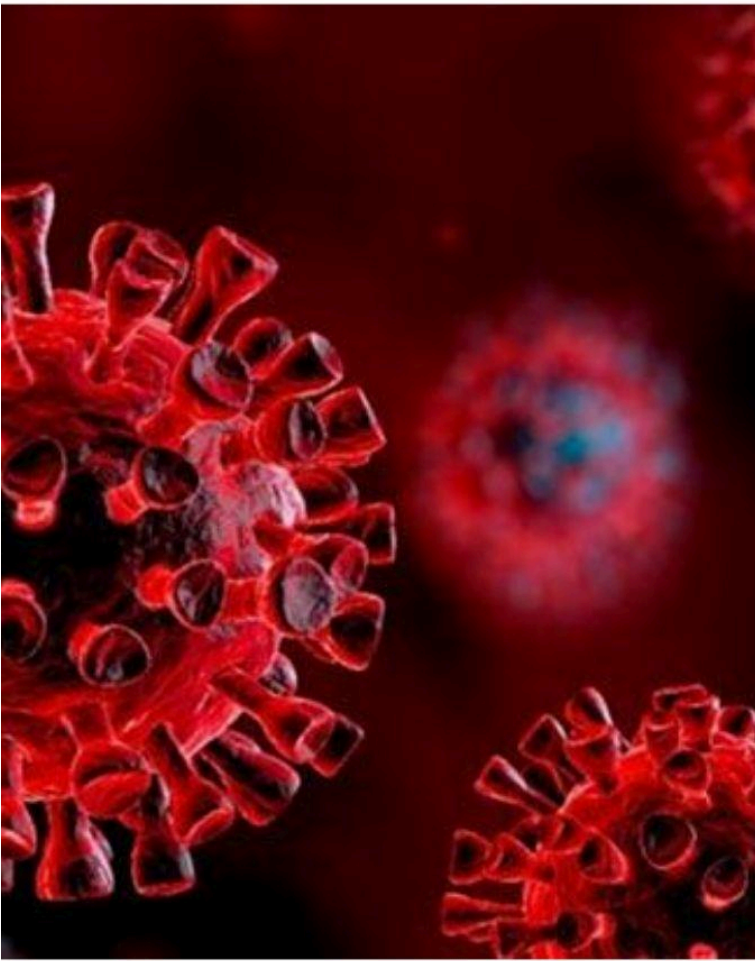
SERIOUS SYMPTOMS:

difficulty breathing or
shortness of breath
chest pain or pressure
loss of speech or
movement

WHAT COULD YOU DO TO PREVENT GETTING INFECTED AND TO SLOW DOWN THE TRANSMISSION OF COVID-19?

- Wash your hands regularly with soap and water, or clean them with alcohol-based hand rub.
- Maintain at least 1 meter distance between you and people coughing or sneezing.
- Avoid touching your face especially nose, mouth and eyes.
- Stay home if you feel unwell.
- Cover your mouth and nose when coughing or sneezing.
- Avoid smoking and other activities which will weaken your lungs.
- Practice physical distancing by avoiding unnecessary travel and staying away from large groups of people.





Can you protect yourself and others from COVID-19?

- Maintain at least 1 meter (3 feet) distance between yourself and others. Why? When someone coughs, sneezes, or speaks they spray small liquid droplets from their nose or mouth which may contain the virus. If you are too close, you can breathe in the droplets, including the COVID-19 virus if the person has the disease.
- Avoid going to crowded places because you are more likely to come into close contact with someone that has COVID-19 and it is more difficult to maintain physical distance of 1 meter (3 feet) which is really important.
- Avoid touching eyes, nose and mouth, mainly because hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and infect you.
- Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissue immediately and wash your hands. Why? Droplets spread virus. By following good respiratory hygiene, you protect the people around you from viruses such as cold, flu and COVID-19.
- Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever, until you recover. Have someone bring you supplies.
- If you need to leave your house, wear a mask to avoid infecting others to prevent spreading COVID-19 and other viruses. If you have a fever, cough and difficulty breathing, seek medical attention, but you should call by telephone in advance if possible and follow the directions of your local health authority due to the fact that ; National and local authorities will have the most up to date information on the situation in your area. Calling in advance will allow your health care provider to quickly direct you to the right health facility. This will also protect you and help prevent spread of viruses and other infections.
- Regularly and thoroughly wash your hands with soap and water for 20 seconds at least or use alcohol-based hand rubs to be able to kill the virus that may be on the surface your hands.



ABOUT USING MASK

HOW TO USE A MASK PROPERLY?

- Before putting on a mask, clean hands with alcohol-based hand rub or soap and water.
- Cover mouth and nose with mask and make sure there are no gaps between your face and the mask.
- Avoid touching the mask while using it; if you do, clean your hands with alcohol-based hand rub or soap and water.
- Replace the mask with a new one as soon as it is damp and do not re-use single-use masks.
- To remove the mask: remove it from behind (do not touch the front of mask); discard immediately in a closed bin; clean hands with alcohol-based hand rub or soap and water.

WHEN TO WEAR MEDICAL MASKS TO PROTECT AGAINST CORONAVIRUS?

- If you are healthy, you only need to wear a mask if you are taking care of a person with COVID-19.
- Wear a mask if you are coughing or sneezing.
- Masks are effective only when used in combination with frequent hand-cleaning with alcohol-based hand rub or soap and water.
- If you wear a mask, then you must know how to use it and dispose of it properly.

TEAM #8079

ALL ABOUT RIVER ROBOTICS!



"BEING THE WINNER, WINNING THE HIGHEST ROOKIE SEED AWARD AND ROOKIE ALL-STAR AWARDS MADE ISTANBUL REGIONAL EVENT AN UNFORGETTABLE EVENT FOR US."

Could you tell us how you were Established? How did it all start?

The establishment of our team began when our Science Department teachers announced with an email which told us that a Robotics team will be established as well as a Robotics club to ensure the sustainability of the team. Then, we the "selected ones" gave positive feedback, but we weren't a real team yet. We were just a group of people composed of different individuals who thought they didn't have much in common.

Consequently, as a result of all our efforts which was made with utmost dedication and enthusiasm, we became a successful, interconnected team, we have had our success. In addition to these, our emotional bond and beautiful friendships that we created in all the activities we have held as a team have also been effective in our success. Having a team captain, who was previously in FRC, in our team made the process easier.

**"IN ISTANBUL
REGIONAL THEY HAD;
REGIONAL WINNER
HIGHEST ROOKIE SEED
ROOKIE ALL STAR"**

How was your first Regional experience?

Our first regional experience was very exciting. Eventhough we attended Mersin and Ankara offseason events, the excitement at the regionals was much higher. For months you work so hard and after all it all pays off. That is overwhelming. In summary, we had lots of fun at the regional events.

As our first regional experience, being the winner, winning the Highest Rookie Seed Award and Rookie All-Star Awards made Istanbul Regional event an unforgettable event for us. Our main goal was to be the winner and win the Rookie All-Star Award in order to have the pleasure and honor to represent our country abroad. We are very glad and proud to achieve this. All in all we had one of the best the most amazing days of our lives!



WHAT KIND OF SOCIAL RESPONSIBILITY PROJECTS YOU HAVE? HOW DO YOU MANAGE THEM?

When we first established our team, there were a few things we wanted to see clearly. We all knew that FRC would be a big part of our lives. We knew that we would spend our holidays, weekends, after schools hours with the team. We were committed but all the trophies we have won hasn't been enough compared to the constant willingness and responsibilities we have had which has been pretty challenging but we figured out that we need to stick to the emotional rush, something that would satisfy us. We figured that we had to find an emotional reason, something that would satisfy us mentally as different individuals of our society. We asked ourselves the question, "Why?" but our aim has been to find out what actually brought us together as a team, our purpose. We listed many answers to that question but eventually found out that we all want to be given an opportunity. We want to give an opportunity to many things through our efforts, things like nature, animals, people with nursing homes, our friends in different schools who have less opportunities than us... Thus we structured our team's motto as, "Give an opportunity, make a difference."

For us, this is how we determine what our social project would be by visiting animal shelters. We visited animal shelters, pet animals and brought them food. We have cleaned waste materials around our surroundings. We invited other teams to courses we took, opened the doors of our own workshop for them use at any time needed. We visited nursing homes, helped our little friends with their education. Our biggest projects serves our motto's purpose as well. In our "Cans can make robots," project, we melted aluminum tin cans into aluminum profiles to help the environment. We also distributed them to other teams in our Infinite Energy and Sustainability Workshop to help them with their robots. We tried to increase awareness about our environment and our usage of energy in our workshop as well. Giving all those opportunities really came back to us too. We learned many lessons, and found ourselves truly happy and satisfied with the outcomes. Seeing one little change being made around us is our motivation. This way we are also giving ourselves the opportunity to learn and experience so many beautiful things.



WHAT ARE YOUR ADVICES FOR ROOKIE TEAMS?

First of all we suggest every rookie team to attend an off-season event. In our team, Only our team captain is a veteran, so the whole team learnt a lot in the off-season events. It is a great opportunity to get used to the tournament atmosphere, to see what a team should do in a tournament and to get used to get used to the presentations from the judges.

FRC is a helpful community and they can feel free to ask for help. If a team encounters a problem, they shouldn't lose their motivation because with high motivation and hard work, success will come by itself!

For sponsorship presentations, we suggest that all teams should practice the presentations every time before they go to a meeting and revise their presentation as they prepare for new projects. When you get sponsors you should create a budget plan. Unfortunately the Rookie Grand isn't given to all rookie teams; therefore teams shouldn't be relying on the Rookie Grand for their budget plan. Every team should be spending their budget wisely. Teams should spend their budget only if they really need something. If there is something they can borrow from another team, it is better for them to borrow than to spend from their budget.

We have seen that you care about gender equality, how did you manage it in your team?

As a team that has 4 lady mentors, this is a great advantage. If we would describe the atmosphere of our team, we would say caring and gender equality are great advantages in the team that motivate us. In our society robotics is seen as a “men’s business” but of course we never think that way. When we were building up our team we encouraged every person to join and made sure everyone had an equal opportunity to become an FRC member.



How are you making use of a situation like quarantine?

It can easily say that quarantine hasn't been an obstacle for us whatsoever. Like always, we are coming up with new projects and ideas in our meetings, including our Give Opportunity project. We are also doing everything we can to put a smile on people's faces in these harsh days.

-

Holding meetings every week.

-

Giving Courses of “Solidworks” and “Java” to our team members and newcomers as well.

-

Using social media to sustain our projects and relations.

-

Giving Live Broadcasts and planning to do the same also with the professionals.

How did you make your budget plan?

When we prepared the budget, we made a separate page for each month that showed our monthly expenditure and income. We wrote how much we spent, why we spent that much, where we bought it from, and how long we would be able to use it. We also applied this system to our income. We have categorized our sponsors such as who, how much or what they gave.

For example; Our budget saw much action in February. We spent a lot of money for the Istanbul Regional, Bosphorus Regional tournament registrations and for our robot, but, during this time, most of our sponsors either gave us money or items at a certain cost. If our mechanical group wanted to do something, our friend (Doruk Gündem) who checked our budget would have to approve the purchase of the item. Thanks to this plan, we succeeded in controlling our budget regularly and safely.





Do you have plans for sustainability?

Yes, we have plans for sustainability for our team. First, we divided the plan into three parts; sustainability of human resources, sponsors and projects.

For example, We established an FRC Club at school, as well as the FRC team for the sustainability of human resources. The robotics club is a nice place for entrants to know if they are suitable for FRC.

The topic of sponsorship is also very important for the sustainability of a team. Teams need sponsors but also a main sponsor for various needs of the team and the general sustainability of the team. Another way for sustainability are projects.

For example, we have made a science magazine named River Scientific involving all of our high school students. We are planning to proceed to publish this magazine, that we first published in March. And we are also going to sustain the social responsibility projects we started at the beginning of the year.



What kind of processes do you have for the candidates from your school?

At the beginning of the school year we send an email to students and parents introducing our team and what we have done so far. An application form is attached to email. After we receive the applications we interview with the applicants and decide as a team to take in or not. Of course at first we have a trial period. After this period, we decide.

During the school year Students can also apply during the school year. First we let them to participate in our activities and see what they can, where to take a role and have enough willing or not. Then we decide for their participation in FRC.

We have a Robotics Club and the members of the club have the priority to take part in our team if they have the required willing and effort to do FRC. Again the members of the team come together and decide.

FIRST REVIEW



FIRST®

Some important
things about
FIRST

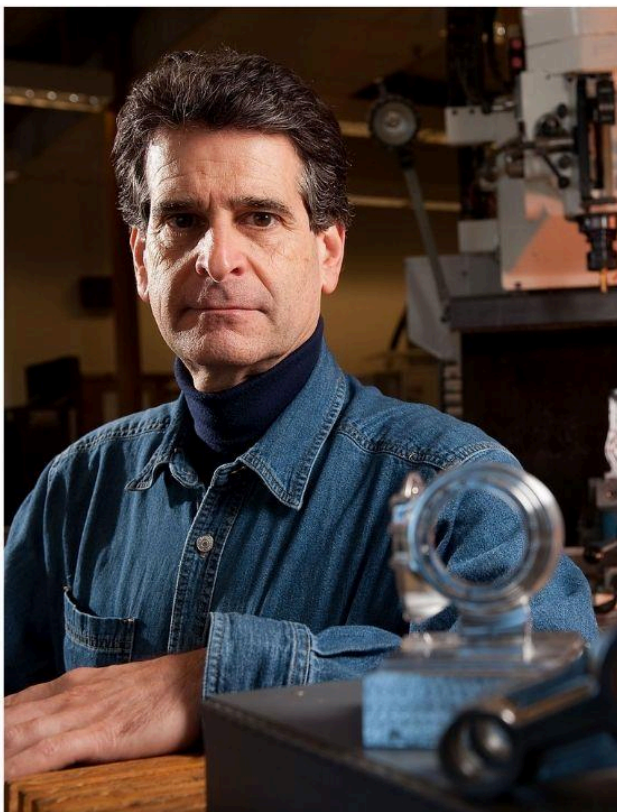
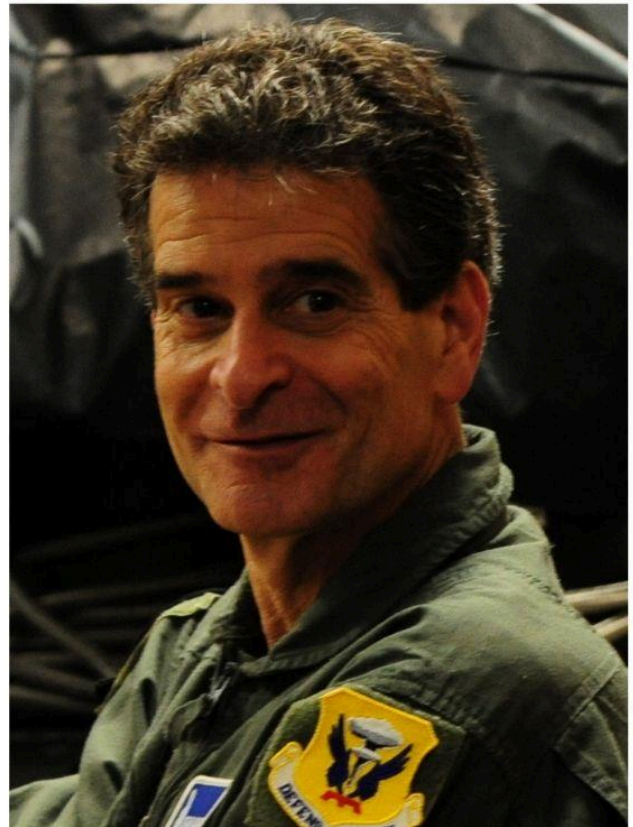
Who is Dean Kamen?

Who is Woodie
Flowers?

Who is Dean Kamen?

Dean Lawrence Kamen, who was born in April 5 1951, is an American engineer, inventor, and businessman. He is known for his invention of the Segway, as well as founding the non-profit organization FIRST with Woodie Flowers.

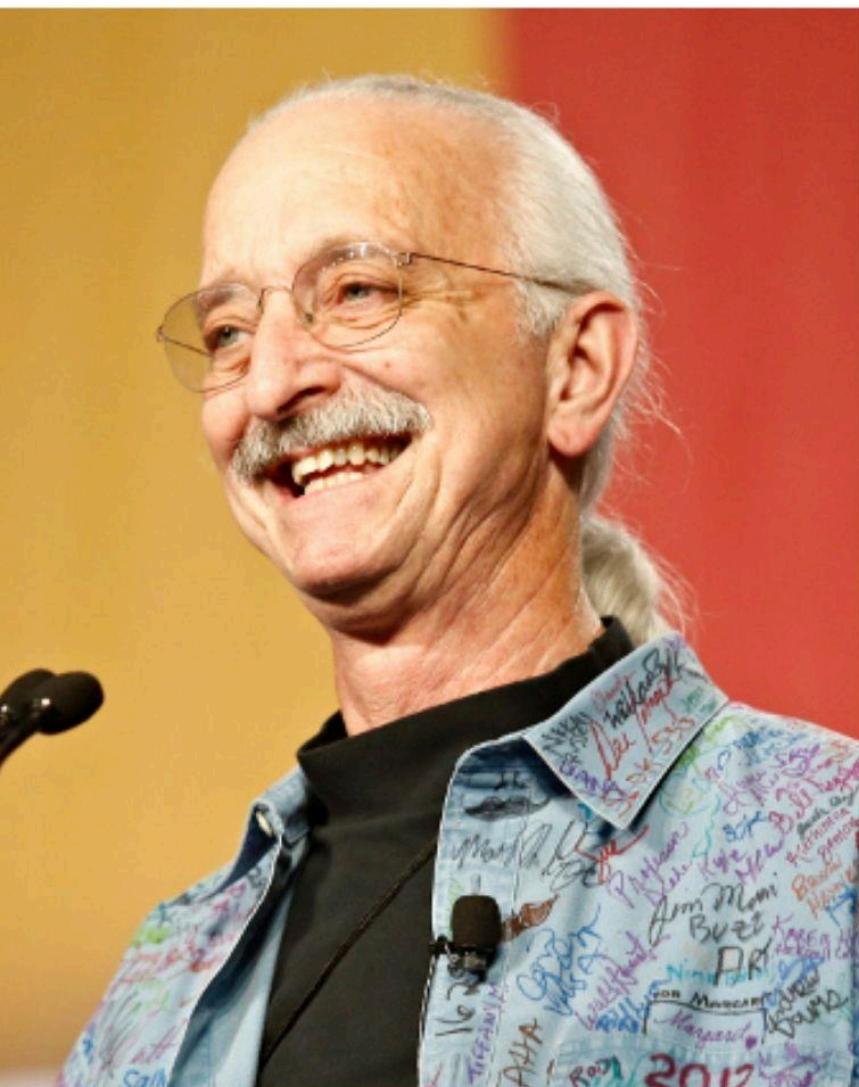
Dean Kamen is one of the most important role models for any individual who develops himself in the field of engineering.



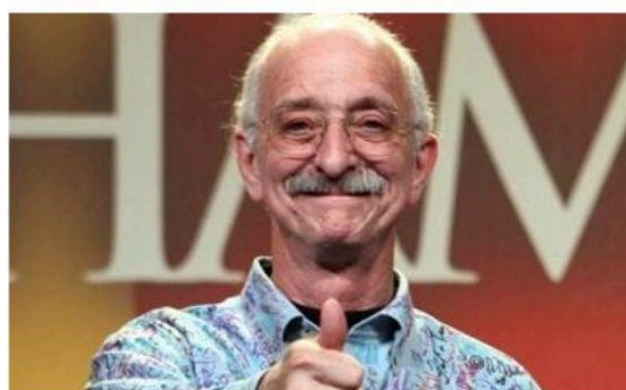
He has carried on many studies on this subject as a result of wanting people with interest to discover themselves at an early age. As a result of introducing his own inventions in a way that will attract everyone's attention, he managed to attract the attention of everyone old or young. In addition to his inventions, he founded the First Foundation, which offered many young people the opportunity to develop themselves in both science and engineering and social fields. In short, he has provided an important path for our future and he has been a pioneer in every aspect of this path.

Who is Woodie Flowers?

Flowers was born in Jena, Louisiana on November 18, 1943. In 1990, Flowers began working with Dean Kamen on FIRST, a project to inspire a culture that celebrates science and technology. They created the FIRST Robotics Competition (FRC) in 1992. Flowers introduced the phrase "gracious professionalism" to FIRST, an idea which has since pervaded FIRST literature and culture. Flowers served every year as National Advisor to FIRST. He was active at FIRST events, working as an MC and treated along with Kamen "like heroes."



Woodie Flowers views himself more closely towards young people from the year of the first foundation's founding. He has also become a hero in the eyes of everyone with his award. The Gracious Professionalism Award comes from Dean Kamen's young people's development in engineering as well as the fact that Woodie Flowers' contests have a sweet competition and basically help each other. At the same time, the Woodie Flowers Award, named after Woodie Flowers, is included in the award ceremony, which is a major creation of Woodie Flowers for mentors who prioritize them in this competition environment where young people put themselves in the middle. We all still keep him in our hearts with the bitter face of losing Woodie Flowers on October 12, 2019, which has brought both self-improvement and social development to his life in competition settings. Just as the first foundation and its values have been passed on to us, we will continue to pass them on to the next generations. Rest in peace.



The Empty Shell's

The Cyberbrain is an implant in the brain that connects the physical and the virtual world together in the manga and the live-action movie *Ghost In The Shell*. Before diving into the movie you need to understand the use and the meaning behind the Cyberbrain? Also know in real life as the neural lace. So the development of the neural lace started with the thought of advancing BCI (brain-computer interface). BCI acquires the brain signals, analyze them, and then translate them into commands, the main objective of the BCI is to restore or replace the problems by neuromuscular disorders.

Elon musk saw the potential of BCI being used differently to start his company Neuralink. One of his ambitious projects is the neural lace. For example, it could allow you to 'talk' to people in your network through thought, sending instructions, or signaling for help. It could also transform data systems, allowing access to infinite databases of information without needing to actively look something up. It breaks down the idea of intertwining with technology. We see that clearly as Motoko talks to HQ scans the database. The thing that separates Motoko and his peers is that she is the first artificial shell (bodies are called shells for obvious reasons) that possess a human brain. Besides the technical aspects, the movie asks the questions as follows: If we lose our bodies, does it mean that we lose ourselves? How is the human soul connected to the brain? What is the bottom line of combining humanity with technology?

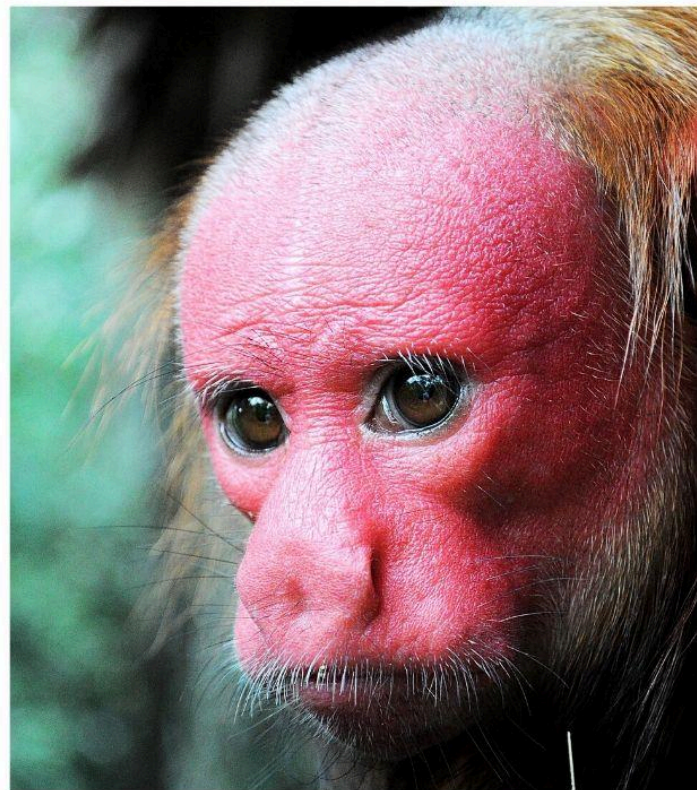
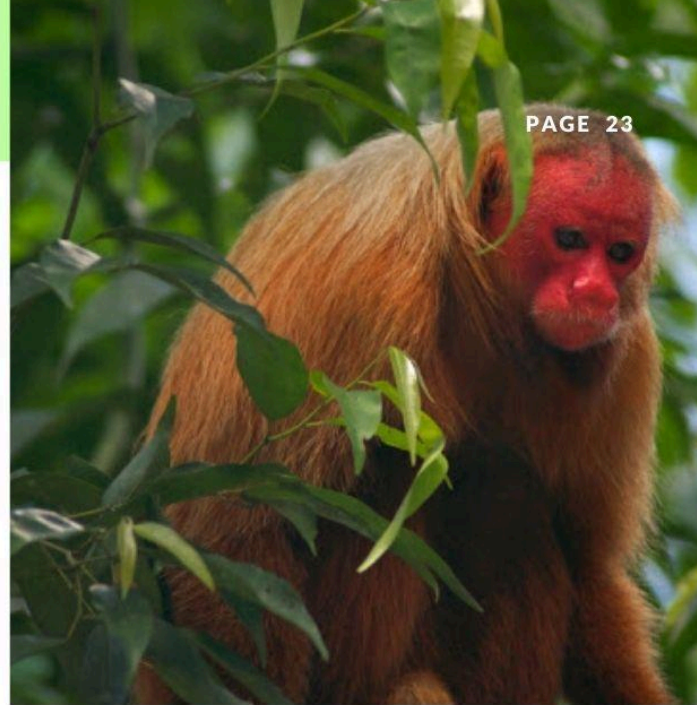




BALD UAKARI

The bald uakari or bald-headed uakari is a small New World monkey characterized by a very short tail; bright, crimson face; a bald head; and long coat. The bald uakari is restricted to várzea forests and other wooded habitats near water in the western Amazon of Brazil and Peru. In general, the bald uakari has a long, shaggy coat ranging from white in color to red and its head is bald. Bald Uakaris weighs between 2.75 and 3.45 kilograms. Its scarlet red face is due to the lack of skin pigments and plentiful capillaries that run under its facial tissue.

It is important that the uakari lives in the tree tops because of the flooding of the forests and the water rising to great heights during the rainy season. During the dry season, it returns to the ground to look for seeds and other food material. The bald uakari can be found traveling up to 4.8 kilometers per day. The bright red facial skin is a sign of good health and it allows them to determine a healthy mate. The breeding season is between October and May. Its gestation period is approximately six months. The conservation status of this species changed from near threatened to vulnerable in the 2008 World Conservation Union (IUCN) Red List because the species has declined at least 30% over the past 30 years (three generations) due to hunting and habitat loss. Although the conservation status has improved, actual population numbers are on a decreasing trend. Since it only lives in white water flooded forests, it is very susceptible to human impact.







30th Year Anniversary of Hubble Space Telescope!

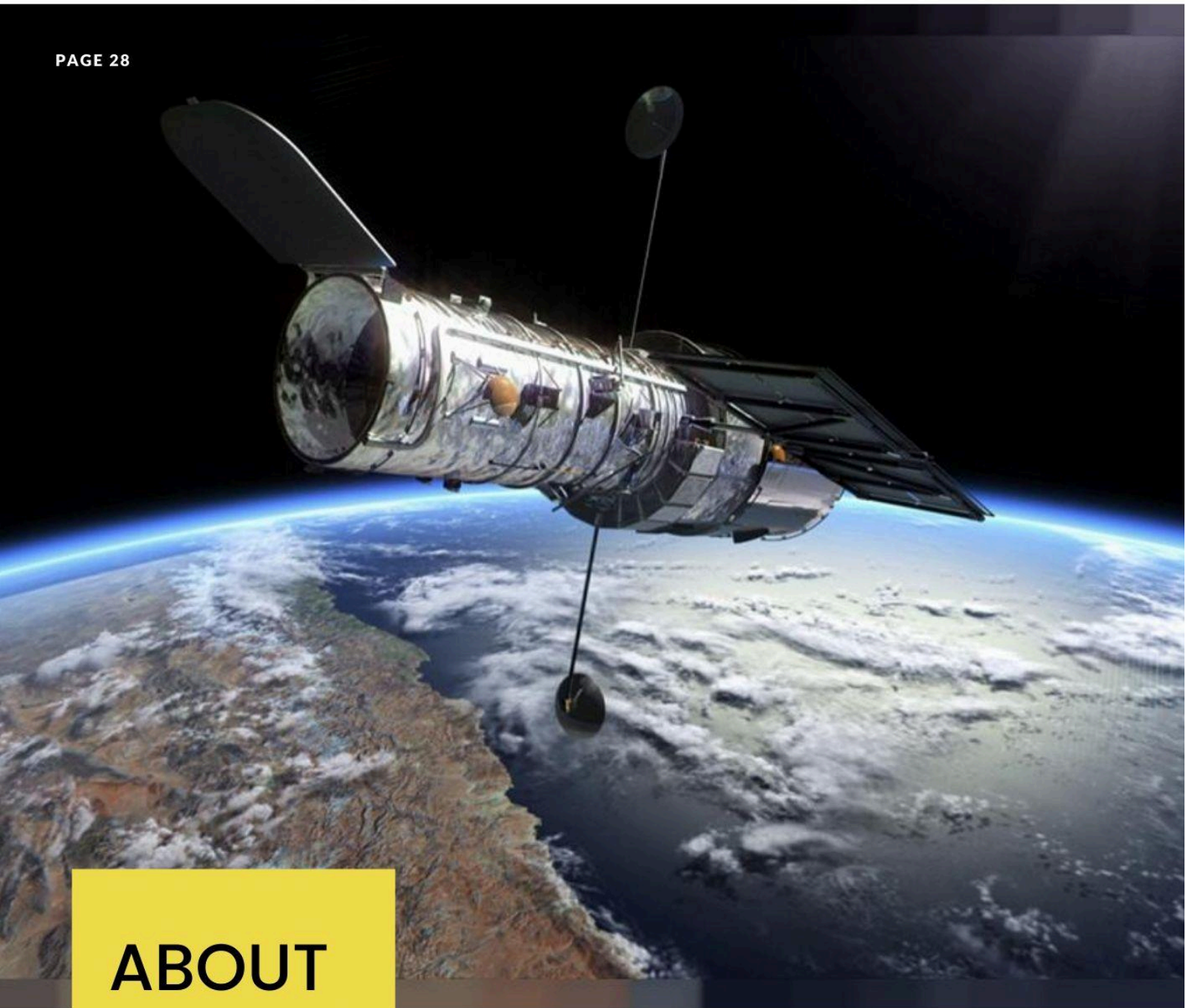
WHAT HAPPENED
IN SPACE?



In 2020, the Hubble Space Telescope achieves its 30th year in orbit. Hubble's unique design, allowing it to be repaired and upgraded with advanced technology by astronauts, has made it one of NASA's longest-living and most valuable observatories, beaming transformational astronomical images to Earth for decades.



For the honor of its 30th birthday, NASA added a new feature to its website. When you enter your month and day of birth, it shows an image that Hubble took on your birthday, but from a random year. For example, here is mine from 1995, October 10th. This picture shows Interacting Galaxies Arp 148. Arp 148 is the aftermath of an encounter between two galaxies, resulting a ring-shaped galaxy and an elongated companion.



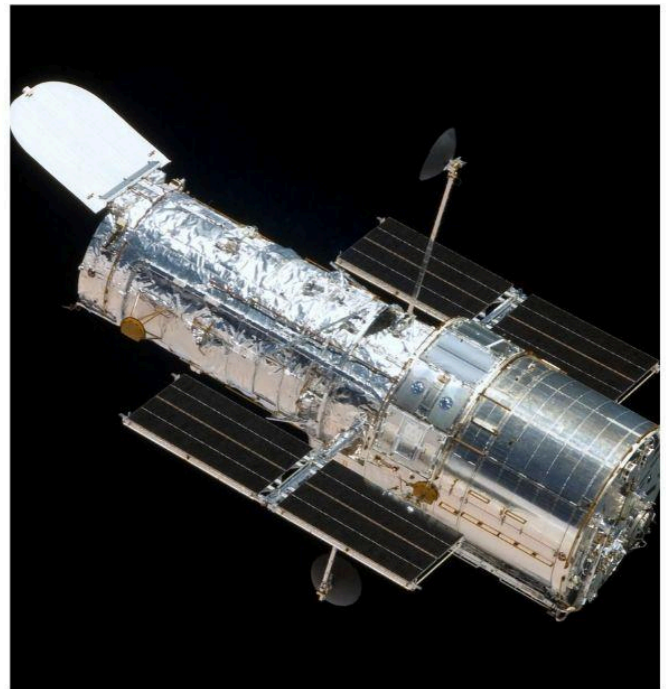
ABOUT HUBBLE

The Hubble Space Telescope is a space telescope that was launched into low Earth orbit in April 24th, 1990 and it remains in operation. It is named after astronomer Edwin Hubble. It has recorded some of the most detailed pictures of space, allowing a deeper look than we could see before.

Even though it has helped resolving important problems in astronomy, it raised some new questions. For example, the calculation of age of the universe. An international team of scientists led by Dr. Wendy Freedman of Carnegie Observatories in California, used the Hubble Space Telescope (HST) to look at several kinds of distant objects. Her team determined a Hubble Constant value of 73, which means a 9 to 11.5 billion years old universe. But a second team of scientists that led by Dr. Allan Sandage, also of Carnegie Observatories and using HST like Freedman, looked at distant exploding stars and found and Hubble Constant value of 58 – a universe that is 11.5 to 14.5 billion years old.

Happy birthday Hubble, thank you for your discoveries!

In March 2019, observations from Hubble and European Space Agency's Gaia were combined to find out the mass and size of Milky Way. It weighs approximately 1.5 trillion solar units and has a radius of 129,000 light years! There are many more discoveries of HST but as we all know, we can't fit them in just 2 pages. Hubble keeps on discovering new things and taking pictures in the orbit of the World. Although the financial cost has been large, its contributions to astronomy are priceless. "Hubble has fundamentally changed our understanding of cosmos. Throughout the year, we will celebrate the many ways that Hubble has brought the universe home to Earth with special events in public spaces and on social media, new images, videos and documentaries, interactive features, and more." said NASA. Be sure to follow them on Twitter, Facebook and Instagram to be updated on all news from NASA. You can also use #Hubble30 to learn about NASA's Hubble anniversary activities.



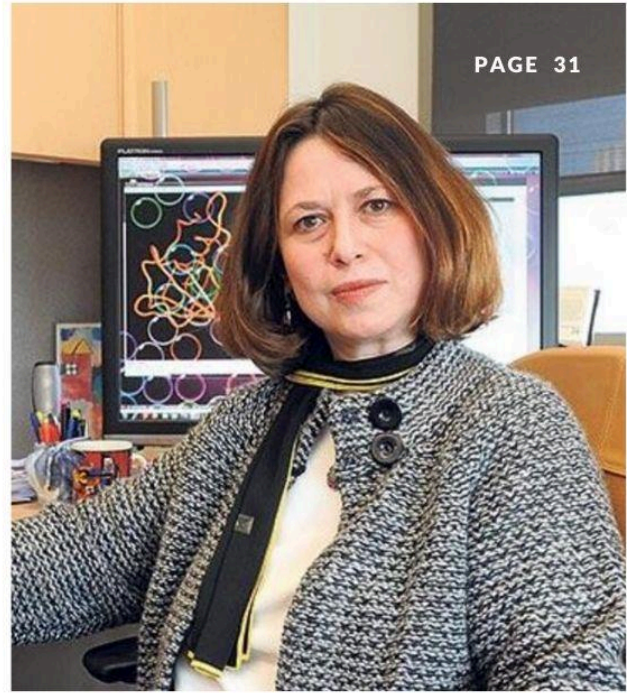
LEONHARD EULER

Euler was born in Basel, Switzerland on April 15, 1707. He is considered one of the most important and all-time leading mathematicians of the 18th century.

As one of the most prolific mathematicians, his work exceeds 70 volumes. Euler has developed many new concepts, proving many theorems that have long been accepted in different fields from simple arithmetic to number theory and topology. During these studies, he was the creator of the modern mathematical terminology used today, defining the concept of function and its spelling (some examples that can be given for this study are the definitions of sin, cos and tan for trigonometric functions). Euler has so many fields of work that it is often possible to come across as a reference in any subject. Euler has been the founder of many of the physical applications of mathematics, which are the basis for basic analysis, graphic theory and currently civil, mechanical, electrical and aerospace engineers. And sadly he died as a result of brain hemorrhage on September 18, 1783.



The first Turkish female scientist in the International Academy of Science. The national academy of science, Founded by the US parliament, the International Academy of Science is an institution that aims to provide public good advice in the fields of science and technology.



i V E T B A H A R



Professor Doctor Ivet Bahar, the founding chairman of the Department of Computer Aided Systems Biology, University of Pittsburgh, USA, is the first Turkish female scientist elected to this academy. Bahar , who has many academic studies in computational biology, became the 5th Turkish scientist elected to the National Academy of Sciences.



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PROVIDE A HAND FOR A PAW!



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