

# ORTAKÖY İTÜ MTAL

Marine, Electric-Electronic, Informatics

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From Seed to Seedling,  
From Seedling to Great  
Plane Trees



### From Seed to Seedling, From Seedling to Great Plane Trees

Plants are an important part of the ecological system and indispensable nutritional source for us. In order for a plane tree seed to turn into a grand tree, it is necessary to have a suitable environment and climate. Now let's imagine we grow a great plane tree and this plane tree will be an important part of the ecological system in the future. Firstly, we should have knowledge of plant breeding and complete all the steps patiently and disciplinarily. It isn't enough to have general knowledge of plant breeding, so we should especially know all details about each one of plant species. Historically, people have thought that everything consisted of 4 elements (anasır-ı erbaa). We can start by bringing together small seeds with soil, water, air and fire (sun) for the grand plane trees of the future. It is extremely important that these are balanced and continuous. We should follow up the process carefully, meticulously and tenderly. We must fulfil all the requirements so that the seed will turn into a grand plane tree. In particular, the germination, sprouting and seedling processes of the seeds are extremely sensitive. We should follow the first step of turning into a grand plane better. It is directly proportional to the effort that the seeds grow well and benefit humanity. "As you sow, so shall you reap"; what a beautiful proverb... Actually our proverbs are one-sentence article. Summary, introduction, data and method, results... All of them are only one sentence.

With 2023 Vision, our children will be given qualified and inclusive opportunities, they will develop themselves with humanistic, national and sentimental values, and they can know themselves better and interiorize their environmental conscience. Their self-sufficiency emotion and determination will develop, they'll like learning and transform the knowledge into social values. All children will gradually get their best potential in line with their interest, skill and characters just like a seed transforming into a grand plane tree.

Our children to create our future with the cooperation of MEB (Ministry of National Education) and İTÜ and with the ecological system of İTÜ Ortaköy MTAL established within the framework of the 2023 Vision, will become great plane trees with the opportunities offered to them. In the 2030s, they will benefit humanity by protecting important values such as beauty, goodness, love and respect for 8.5 billion people, using and producing science and technology. They will ensure the creation of humanely sustainable and safe environments on the earth or other planets. Our children will become architects, engineers, entrepreneurs and managers of the future considering the humanity, thanks to the opportunities and the ecological systems. (Continued on page 10)

- We talked about education with Beşiktaş district governor Önder BAKAN. Firstly you shouldn't be ashamed of yourself, your family and society. I mean we should know sociology very well. Whether you are a sailor, aviator, a landsman, an engineer, a district governor... (You can find the full interview on page 6)



- İTÜ Ortaköy MTAL students had a conversation with İTÜ Alumni Association Board Member Bülend TEMUR. I believe quality education has a great importance. Actually İTÜ MTAL is a pilot school and you are model students. So you have a lot of responsibilities, you aren't ordinary students. You and your family showed courage and chose İTÜ MTAL since you have come to a newly opened school. I often follow here and interview with our teacher. (You can find the full conversation on page 8)



### İTÜ Ortaköy MTAL and Industry Collaborations

- Digital Research, Development and Education started in İTÜ Ortaköy MTAL. Our students started to use augmented and virtual reality technology and to develop educational materials in these technologies. İTÜ MTAL will continue to produce these technologies as well as to use high value added technologies.
- Our collaborations with the İTÜ Foundation, which is an important centre of certified training, continue. İTÜ Foundation certified trainings will be open to everyone at our school very soon.
- In 2024, we will produce our first graduates and they will graduate from university in 2028. Our students who will always be brought to the centre with the national, spiritual values and global perspective of our country will drive the world in science, art and entrepreneurship. Industries are our important shareholders. T.R. Beşiktaş District Governorship, Beşiktaş District National Education Directorate, İTÜ Vocational and Technical Anatolian High School signed "SCHOOL – INDUSTRY COLLABORATION ISTANBUL MODEL" protocol with some organizations and institutions.



İTÜ ARI Teknokent, which is a focus point of technology, innovation and entrepreneurship, always supports İTÜ Ortaköy MTAL with “Forward Together” slogan. İTÜ ARI Teknokent is an entrepreneurship and innovation base of Turkey, which aims to contribute to technological developments by offering the optimum environment and opportunities to the technology companies and entrepreneurs to develop and commercialize various technologies. İTÜ ARI Teknokent established in 2002 and carries out its activities at İTÜ Ayazağa Campus employs almost 8 thousand people with more than 300 companies and develops over 750 projects every year.

İTÜ ARI Teknokent created a value by contributing to the country's economy thanks to 3,000 successful R&D projects, 219 of which have been patented so far, with 10 buildings on an area of 624,318.97 m<sup>2</sup>.

İTÜ ARI Teknokent companies of which R&D exports have reached 371 million dollars from 2003 had an annual turnover of 585 million dollars and an R&D export of 65 million dollars in 2018. Additionally, İTÜ ARI Teknokent has become one of the most important entrepreneurship centers of the world with significant start-ups thanks to İTÜ Çekirdek which is considered as one of the best five incubation centers, İTÜ Magnet which is the first “scale-up” entrepreneurship centre of Turkey and Innogate International Acceleration Program which opens export doors for technology companies. İTÜ Ortaköy MTAL students will benefit from all these experiences.



**TÜRKİYE BİLİŞİM DERNEĞİ**  
“Teknoloji üreten bir Türkiye için”

In 1971, immediately after Turkey met with informatics, a semi-academic community to be considered as informatics professionals established Informatics Association of Turkey (TBD) with a great future vision. Today, it has turned into a leading civil society movement that tries to spread the “Informatics Culture” with its member structure from every layer of society. The number of members has exceeded 12.000. With its seven branches, 13 provincial representatives and the TBD-Genç organization (university collaborations) at

**İTÜ Ortaköy Vocational and Technical Anatolian High School,**

universities, TBD continues to make significant contributions to the development of the IT sector.

İTÜ Ortaköy MTAL students will get ready for the future more powerfully thanks to the contributions of Informatics Association of Turkey. Besiktas District Director of National Education Nesrin KAKIRMAN, Istanbul Branch Chairman of the Board at Informatics Association of Turkey Deniz TİRYAKİOĞLU and İTÜ Ortaköy MTAL headmaster Prof. Dr. Hüseyin TOROS signed the protocol prepared.



**TMMOB**  
**ELEKTRİK MÜHENDİSLERİ ODASI**

- The Chamber of Electrical Engineers (EMO) has been established in 1954. The establishment is based on the UCTEA Law No.6235. It is a professional organization defined in the form of a public institution as stated in the Article 135 of the Constitution. It is one of the 24 constituent chambers of the Union of Chambers of Turkish Engineers and Architects.

- İTÜ Ortaköy MTAL students will get ready for the future more powerfully thanks to the contributions of Chamber of Electrical Engineers. Besiktas District Director of National Education Nesrin KAKIRMAN, Istanbul Branch Chairman of the Board at Chamber of Electrical Engineers Erol CELEPSOY and İTÜ Ortaköy MTAL headmaster Prof. Dr. Hüseyin TOROS signed the protocol prepared.



# yedirenk

İLETİŞİM GRUBU

• Yedirenk İletişim Grubu established in 1996 works with experienced and powerful teams who are able to executive multiple projects. It consists of greatly creative team, directors, cameramen, scenarists, graphic designers, editors and animators. Additionally, it has a managerial staff that brings together a lot of artistic people and carries out perfect works. Yedirenk, which tries to make a difference in the advertising industry with the inspiration from the values of our civilization, succeeded unforgettable campaigns with its experience gained over the years. It became a partner in the success story of many brands like a super hero and prepared documentaries to be remembered for years with its long-term projects. It made us proud of swimming in the deep waters of the imagination, making new inventions, looking at people, events and ideas from different angles.

• İTÜ Ortaköy MTAL students will get ready for the future more powerfully thanks to the contributions of Yedirenk. Besiktas District Director of National Education Nesrin KAKIRMAN, Chairman of 7 Renk İletişim Yapım Org. Reklam ve Basım Yayın Hizm. San. ve Tic.Ltd.Şti. Kemal ÇİFTÇİ and İTÜ Ortaköy MTAL headmaster Prof. Dr. Hüseyin TOROS signed the protocol prepared.

## Seminars of İTÜ Ortaköy

• Graduating from the department of Physics Engineering of Istanbul Technical University and studying Journalism, Photography, Computer and Astronomy at Santa Monica University, and Astrophysics at California State University, and currently conducting scientific Physics and Astronomy researches in the projects supported by NASA at Northridge Campus of California State University, Zafer ACAR gave a seminar on “Starry Sky and Mysteries of the Space” on January 9, 2020.



• Prof. Dr. İlyas DÖKMEŞ, who was the Rector of Cumhuriyet University between 2008 and 2012 and is currently the chairman of Şişli Hamidiye Etfal EAH Inflation Diseases and lecturer at Health Sciences University, gave a seminar



• on “Global Warming and Infectious Diseases” on January 15. On January 16, 2020, Professor Selahattin INCECİK, who is a retired lecturer at İTÜ, the president of IUAPPA and the IPCC team that received the Nobel Prize in 2007, gave a seminar on “How to write a scientific paper?”



• On January 20, 2020, Derya KILIÇ and Süleyman ERYILMAZ, one of the experts of Adres Patent, company gave a seminar on “Patent, Utility Model and Design”. İTÜ Ortaköy MTAL students rolled up their sleeves to become the inventors of the future with knowledge of patents, utility models and design.



## Empty cans make the most noise



## DAGEM

İTÜ Ortaköy MTAL

has a potential to be Digital Researches and Development Education Centre of the future

Augmented / virtual reality studies, unmanned sea, land, air vehicles, data mining studies, 3D designs...

## Courses -

### Lessons

Our teachers support the lessons with visual and audio tools in order to make the lessons more efficient for the students. Thus, our students enjoy the lessons a lot and as a result, the knowledges become permanent. In addition to the lessons, our teachers advise us to always be people who love the nature and environment, and that our moral aspect is strong. In this context, we teach some of our lessons in our garden overlooking the unique Bosphorus. We also spend time with the cute animals that accompany us while breathing the fresh air. We feed them, show kindness and play games with them. Here is an image of those moments: We taught the last lesson of our first semester with our students in our garden.

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## Projects

Kayra Koray Yılmaz, one of our students, took water samples from 4 different points of the Bosphorus and looked at the microplastics in their contents.

### What is the subject of the study?

The subject of this study is microplastics which of danger haven't been realized yet in Turkey. To mention the microplastics briefly, they are plastic particles that are too small to be seen. Being too small to be seen by the eyes makes it easier to accumulate in the body and becomes a threat in our meals. Therefore,

microplastics are more dangerous than plastics at the macro and meso levels.

### What are the findings?

The findings obtained contradicted the prediction. According to the prediction, while it is not expected microplastic detection cannot be made on the surface, four microplastics in total were detected: three microplastics in 20 cc water in Creek of Istinye and one in 20 cc water in Beşiktaş Pier. Any detection wasn't made in Ortaköy. This figure can be defined as moderately dangerous.

### What are your goals in these studies?

Turkey, surrounded by sea on three sides, is a country rich in biodiversity and fisheries is high consumption. So we can be seriously affected by such problems. My goal is to provide the public with the seriousness of the business and raise awareness in people.



## UAV (Unmanned Aerial Vehicle) Team

As İTÜ MTAL family, we work devotedly to carry out many projects in our school. We have already created our UAV (Unmanned Aerial Vehicle) team, which is one of the biggest goals. The goal of our UAV team is to develop UAV and rocket. This team consists of 28 students from our preparation classes A, B, C and D, who came together several times to achieve this goal. Prof. Dr. Mustafa HELVACI is an important member of our UAV team and at the head of these students. So far, they have planned for the distribution of tasks and things to do within the year. According to the distribution of tasks, the students of the maritime branch will design, the electrical and electronic branch students will do the parts and sensor connections, and the IT students will code. One of the plans of our UAV team this year is to ensure that students of the UAV team learn this industry well. Many of our students in the team work devotedly to learn well. We hope that they will receive a recompense for their work at the projects they will carry out.

Prepared by Kayra Koray YILMAZ from Preparation Class-C

### Firstly, could you talk about yourself?



## STUDENTS' SATISFACTION ABOUT 'I CONSULT MY CONSULTANT' PROJECT

I am Ahmet Numan KEÇECİ, from Preparation Class-C. I like reading books, swimming, table tennis and I like science lessons.

### Could you talk about your experiences about 'I consult my consultant' project?

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- Within the scope of 'I consult my consultant' project, I had the opportunity to discuss both my project and my interests with my consultant teacher at the department of Aeronautical and Astronautical Engineering Faculty of Aeronautics and Astronautics of Engineering Faculty at İTÜ and ASELSAN Independent Board Member Prof. Dr. İbrahim ÖZKOL. He gave us critical information about the key points we should be careful about and guided us. I would like to thank him for this matter.

- **How did this project advantage you?**

As I mentioned, I got opportunity to discuss about my interests. I think it gives me an idea about my choice of profession in the future. So I could broaden my horizon in this regard. It is a perfect experience for a high school student! Other high schools should take this project as an example.

- **Are you satisfied with such a project?**

As a student in high school preparatory class, this is the project that I have gained the most experience in my education life. It motivates us that our advisors spend their precious time for high school students. Our headmaster Prof. Dr. Hüseyin TOROS was particularly interested in this project by working overtime and as a person who best observes these efforts, I can say 'I Consult my Consultant' project is a diamond for İTÜ MTAL students!

- **Lastly, is there anything else you'd like to add?**

Lastly, I would like to thank my headmaster Prof. Dr. Hüseyin TOROS, who met with every academicians for such a project, and the management staff of our esteemed school.

Kayra Koray YILMAZ's study about 'Dangerous Dimension of Plastica: Microplastics' was shared with the public at Denizhaber. You can access the study on the link below.

<https://www.denizhaber.com/guncel/plastigin-tehlikeli-boyutu-mikroplastikler-h84492.html>

### Visit to our President of School Parent Association

Our headmaster Prof Dr Hüseyin Toros and augmented, virtual and mixed reality (AVMR) projects executive at 7 Renk company, Şefik Polat visited Mr. Ali Mürteza, the President of Parent-Teacher Association. At the meeting, the studies in İTÜ MTAL and general education program were evaluated. It was stated that the use of ASKG in education is becoming widespread all over the world. It was emphasized that ASKG products will be used in İTÜ MTAL and these products will provide great convenience in cultural lessons and foreign language education besides vocational education in other schools, and the most important issue will be to evaluate good data for the future by evaluating the students' success or failure.



### Interviews

#### We had a conversation on education with our Beşiktaş District Governor Önder BAKAN

- **Did you choose your profession voluntarily?**

I started willingly. I left the faculty of literature before and switched to the faculty of political sciences. The best thing in life is that people do what they want. I have been working lovingly and deferentially for about 23-24 years.

- **What is the education process of your profession and what are your recommendations to those who want to work at this profession?**

After graduating from political sciences or law faculty, they have to pass the written exam of the ministry. Those who are successful in the written exam interview with the number of people for four times to be taken. Those who successfully pass the interview can take the lead. It is not just after the exam that we start our profession. After studying for four years, we have a separate education process for three years. We spend these three years in internships with governors and district governors. We're going abroad, then we start our job to come to Turkey.



- **As a district governor, you have a busy tempo, can you spare time for yourself except for the work?**

If you cannot spare time for yourself, you can never conduct your profession efficiently. Whatever your profession, it is you who will spend the most time on yourself. Because I do not think that someone who cannot spare time for him or her can produce a very healthy job. I also pay attention to this in my own life.

- **What are the general problems of people in Beşiktaş?**

In fact, the problems in our country are not very different from each other. Perhaps looking at from a distance, it is understood that other things are the priority for our friends in different parts of the country. However, the problems in Kastamonu, Karabük and Çankırı or Mersin are not very different. The problems in citizens' relations with each other are that you are very civilized, intertwined with art, master or doctorate ... Our ambitions never end. There are generally scale differences in the problems.

- **How does the problem reach you and how is the solution? Can you tell us a little bit about that?**

Besiktas is one of Turkey's most active place. We have a population of 185 thousand, but there is a 2 to 2.5 of dynamic population during the day. This continues until 4 in the morning due to the fact that the night entertainment and service industries are at any time of the day. Therefore, there are many different open doors in the communication of the citizen with us. We are always in contact with our citizens. But, of course, there are people we still can't reach or want to contact us, and we are trying to minimize this.

- **What are your goals for Beşiktaş in the coming years?**

Beşiktaş has a very different atmosphere in every respect. However, of course there are points we need to improve. Ortaköy is one of the most beautiful places in the world, but my dream is to live very precious people on the upper floors of the apartments or to hang geranium flowers from their balconies... The cafes on the streets will be the best ones in world. I want people to be able to see the precious silhouette of İstanbul. I want people to do their commercial activities with peace of mind and be in a fusion with the people residing there. I would like to create an environment where everyone is happy and respectful without complaining. Of course, we will increase the standards as much as we can.

- **We want to be known globally, after reaching a certain level of education, what can you suggest to us as someone who has communicated with people?**

Here's what I can tell you and all our young friends: Firstly you shouldn't be ashamed of yourself, your family and society. We need to give all our solution offers through the sociology of this society. You can't realize these tremendous solutions and great ideas here, considering Finland. You will just tell or say "How beautiful!" but this will also be a disappointment. Human values are the same everywhere, we don't just try to help there when earthquakes occur anywhere in the world.

- There are some things that human beings are trying to do all over the world. The same thing happens in different places, but sociological features are different in every society. At the beginning of 1994 there was an intellectual society. So there are many good things we can do for you in this country. After that, you will succeed anyway. I want and want to know our society very well. We always say this to our own children. There are some prejudices in our country. I can't live in this country, I can't do it in this country... There isn't someone waiting for you wherever you go. Nobody will say "Welcome!". There is no such world, so you will work there. You will even work harder and effort more. For example, there will be no one to help you. In your company or public administration where you work, you will not even be able to think "Sorry, do you mind if I don't come until noon tomorrow?". So no matter what you do whatever profession you do, get to know your society well. Know where you came from and where to go.

- **İTÜMTAL: What do you think about the schools in Beşiktaş? Is there any hardware you want to add or remove?**

- I like the education conditions in Beşiktaş. I think the biggest factor here is students. There is a historical success. Otherwise, there is no legend created in five years. Education managers, teachers, district governors and parents who come here knowing our success

## We had a conversation with İTÜ Alumni Association Board Member Bülend TEMUR

and are trying to contribute. Look at yourself in this historical success, you have been working for at least three to five years to study in these schools. You make the greatest effort then your families... They provide financial support, send you to private courses.

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- **Finally, what did your profession bring you?**

As a human, of course it has contributed a lot. It has also contributed a lot to my personal development; I owe everything to my profession today. My phone has never been turned off. It is turned on for 24 hours. I am more interested in people who are not registered in the telephone book especially after coming to İstanbul. I never know who's calling why. My friend, who is registered in the guide, I know him, even if I postpone it. Of course this is also an angle, it is a part of respect in your business. I love my job and I try to achieve something. So I try to do the best I can, as long as Allah allows. I wish my teachers had said to me that you would work in Pertek district of Tunceli and retire and I didn't have to do anything when I was a student. I suppose I would be extremely happy. Working in the most beautiful district of İstanbul at the end of 22-23 years... There is no greater happiness.



- **We came to the end of our interview. Thank you for your valuable time.** (Interview publishing: Kevser GÜMÜŞ Preparation class-C, Kayra Koray YILMAZ Preparation class -C, Buğra Preparation class -C, Kayra Koray YILMAZ Preparation class -C, Çakıl Serra Su ÖZTEN Preparation class -D, Melek Su GÜNEŞ Preparation class -A)

- **Firstly, I want to thank you for coming to our school. Can you exactly explain what İTÜ Alumni Association is?**

İTÜ Alumni Association is a non-governmental organization that is open to everyone who graduates from İstanbul Technical University. However, there is an official procedure since that is an association. You cannot be a member as soon as you graduate, you must apply first. Our first goal is to do something for our country, and our second goal is to support İTÜ to strengthen its leadership

position in our country. Bringing alumni together to create common synergy and benefit students. If you ask what we are doing, let's start with the students. We have a student club; İTÜ Alumni Association Student Club. It establishes a connection between us and students. The club went into action in 2015. Currently, it is the largest student club of Istanbul Technical University and has about 2500 members. There are more than 200 student clubs at İTÜ; however it is the biggest one. If you ask what they are doing, for example, they visit the offices of the graduates and organize visits to factories and facilities. Also you can organize such visits. There is an organization called "Coffee from Graduates" (Kahveler Mezundan) which they hold every week. Participation is limited, about 30 students can join. Of course is a chance to join there among so many people. An expert graduate comes. This person can be the general manager or manager of big companies. They have a talk all together. Our graduate tells about his or her experiences, past and what can be done. Our students ask their questions. Different things are done, of course. For example, conferences are organized. So, what do they provide for you students? Everyone learns something new, giving them the advantage of looking at things from different angles. They can also obtain internship opportunities. They talk to people they can't even meet with his secretary. We tell the graduates that they are grateful. Now our students have financial problems. Of course, we all have financial problems, we give scholarships to our students who have more problems. We are currently providing scholarships to 420 students and we will increase this to 500. Additionally, İTÜ Alumni Day is organized every year. İTÜ Alumni Association organizes "İTÜ Day" open air organizations in cooperation with our Rectorate. Our graduates and their families have fun, chat and have great moments with their friends through the day. Around 5000 graduates came last year. In the previous year, this figure was 3000. Concerts and fun activities are held in a festive atmosphere. Our association also organizes conferences. İTÜMD Çamlık facilities, which have become a meeting point for students and graduates within the Maslak Campus, was established. In this facility, we established our association centre, meeting rooms and a restaurant named İTÜ Lokal. Just keep in mind. When you go there, go upstairs, we have employees at the centre of our alumni association. Make yourself at home when you go there. You can find the details on our association's website (<http://www.itumd.org.tr>). We also have a mentoring program that other universities take as an example.



• As you know, İTÜ MTAL, which we are in, was opened this year. What are your thoughts on this high school? I would appreciate if you can state its positive and negative aspects. I believe quality education has a great importance. Actually İTÜ MTAL is a pilot school and you are model students. So you have a lot of responsibilities, you aren't ordinary students. You and your family showed courage and chose İTÜ MTAL since you have come to a newly opened school. I often follow here and interview with our teacher. (Hüseyin Toros). In Turkey, there is no other high school of

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which headmaster is a professor, isn't it? In this sense, you are very lucky. He also works very selflessly. I consider positively. Now let's look the past. Being a primary school graduate was enough to be a civil servant. They achieved the tasks at that time. Then it was necessary to become a secondary school graduate. So, when you graduated from high school, you were regarded like today's professor doctor. 40 to 50 years ago... Today, the quality and level of education is much lower, but it should be higher in secondary education. But vocational high schools have a separate feature. Vocational high schools are actually a system that teaches the profession in advance. You go to university in other classical schools, you get ready after you get your diploma, and you realize that you don't like that profession. Because you don't know that profession enough. However, you both know this and learn its difficulties and conveniences at this age. If you don't like the branch you are studying in the future, you can get undergraduate education in other professions. Because the students in other classical schools generally regard their current education only as lessons in mathematics, biology, science, etc. But you will study in the sub-branches of Maritime, Information Technologies, Electric-Electronics and Technology, and understand and try these professions. This offers a very important infrastructure for directing you and creating your career. It is very important to start education according to the interests. It is very difficult for older people to learn some things. For example, foreign language is best learned until the age of 3. You don't forget that you learned until the age of 11. So when a 40-year-old person tries to learn a foreign language, it is almost impossible for him or her to learn it perfectly. Actually, you start to learn the profession at a young age and reinforce it with future knowledges. Because you know, the connections of neurons in the brain are decreasing after a certain age. Now, these are the times when your perceptions are most open; It is also a critical time for choosing your profession and creating your career. The answer to your question is "yes". I am proud of you.



- As you know, our school was opened this year. Four years later, we will be the first graduates. Who should attend the alumni association and does the alumni association have advantages?
- You are here as a club, isn't it??
- Not everyone is in the club. In interviews and other events, we choose mostly among volunteers or in turn.
- To be together, to coordinate your work and to support each other... If a single person was responsible, possibility to be successful would be much lower. Actually, alumni association is like that. So when you come together, the most important thing is that you have different thoughts as different brains in the face of a situation. When you put these thoughts in the same pot, you get the most accurate result. There is no such thing as a hundred percent in life, but even though I am very knowledgeable about that when I



make a decision, my chance is fifty percent. But if you discuss and decide together with different people, this rate will be 70 percent or higher. You will also have the opportunity to promote your school. Your school should have graduates to be accepted. The points reached by the graduates determine the quality of the school. In other words, the mirror that reflects the quality of the school is its graduates. Alumni association is the corporate face of this. In this sense, the alumni association is very important.



• **As you said, Alumni Association offers scholarships. How do students receive these scholarships? How are these scholarships provided?**

• We have graduates in different institutions. I sometimes visit them. When we tell about our association, people say “I am a graduate of İTÜ. When I was a student, I couldn’t have bought even a simit. Now I earn money so I want to beat the big drum.” Of course, there are donator institutions. However, the owners or managers of the institutions are generally managers from İTÜ.

• **Our generation is advancing, what are your predictions about the future?**

• About what? The future of what?



• **Professions and branches of our school. For example, when İTÜ MTAL was established, three departments were defined within the scope of the future professions. Maritime, Electric-Electronic and IT. Is there anything you think differently? What do you think are the professions of the future?**

• Of course, your biggest chance is that this school is a part of İTÜ. In Turkey, the leader is the school which meets the needs at the best level. Of course, there may be some different branches. But these are the professions that will always exist, so these branches are defined. So why will maritime exist? Because there is no “everything” in any country in the world, meaning raw material or

final product. These need to be moved. Especially, the most economical method of intercontinental transportation is seaway and ships; therefore, this profession will always exist. Other branches are informatics and electrical-electronics. We are in the robot age now. Apart from these, Medicine is one of the areas that will never die. For example, a teacher from İTÜ developed a device for the recognition of cancer cells and intervened directly there. There are also people who received awards from America. (Interviewers: Ömer Yusuf ÖZKURT, Sıla GARİP)

## People live together just like a mill is turned by wind.

İTÜ Ortaköy MTAL students team up. We invite institutions and organizations to support our teams. Here are some of our teams waiting for support.

- Maritime Research Team
- Unmanned Aerial Vehicles Team
- Robotics Team
- Augmented / Virtual Reality Team
- Environmental Research Team

### İTÜ MTAL ENVIRONMENTAL RESEARCH TEAM

**Let’s Protect the Environment Project:** Increasing industrialization and urbanization have caused environmental pollution. The intense greenhouse gases released and unconscious deforestations cause global climate change. In addition, wastes released into the environment cause major problems in living areas. Wastes accumulating in the body parts of the living stomach, tissue, gill, etc., and disorders in the food chain pose a serious risk for the endangered creatures. Heat levels are increasing and biological diversities are gradually decreasing. The aim of our project is to present global climate change, environmental pollution and marine pollution to the public and to develop methods and research these problems. We need the support of institutions and organizations in the following subject.

Our needs

Celestron 44341 LCD Digital Microscope II..... TL2575 Funel

100mm..... TL 4,82

Funnel 50mm (3x)..... TL 8,34 Beaker 100ml..... TL 4,62

Beaker 1000ml..... TL 12,97

Hydrogen peroxide %35..... TL55,66 NaClO (11,1 gr/cm3)..... TL 32,19

Precision balance ..... TL105,6 Magnetite (10x)..... TL 45

Petri Plate (10x)..... TL18,10 Neodium (10x)..... TL 11

+ Instant needs ..... TL 626,7

Total: TL 3500



**Supports of the Industries are Continuing**

İTÜ Ortaköy Vocational and Technical Anatolian High School,

- Some needs of our school were met by Global Marine. We thank Global Marine for its contributions. <http://www.gmarine.net/>



## From Seed to Seedling, From Seedling to Great Plane Trees

(First part on page 1)... İTÜ Ortaköy MTAL offers our children the opportunity to get 247 years of experience. İTÜ Ortaköy MTAL is equally close to all secondary schools for new students. If each of our students has a talent in Maritime, IT and Electronics and likes one of these branches, they should start studying to get high scores in LGS.

Why is İTÜ Ortaköy MTAL showed so great interest? On the road, on the street, at the market, at the grocery store, on the bus, at scientific meetings or private meetings, everyone asks İTÜ Ortaköy. I suppose that İTÜ Ortaköy offers this environment to our children just like air, water, soil and sun are required for germination of the seed. Experience isn't got easily. As stated by İTÜ Rector Prof. Dr. Mehmet Karaca, Istanbul Technical University aims to increase productivity through continuously improving and developable processes within the framework of its strategic and quality management policies determined in line with its mission and vision. So, İTÜ Ortaköy puts people on the centre and creates a planned human resources management. Just as the environment is important for the seed to turn into a plane tree, the deep knowledge and tradition of our university have the same importance for our children. Maybe you've heard the winner of the best corn contest of the year, which is held every year, gives the corn seeds that he grows to his closest neighbours. His answer to those who say "Are you aware of what you are doing?" is exactly the answer we are looking for: "Those poor-quality seeds in my neighbouring fields come to my field by wind. No matter how I try to produce the best corn every year, the pollen of those poor-quality corn will mix with my crops, damage my crop and seed. However, if we share the best together, we can do better and protect our own good seeds. İTÜ Ortaköy MTAL will constantly share the beauties. Thus, we will contribute to the development of other schools. İTÜ Ortaköy MTAL takes firm steps towards becoming a world brand. How about you to

accompany our beautiful journey?

On behalf of the Social Activity Team, Headmaster Prof. Dr. Huseyin TOROS

### Impressum

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# AR VR Artırılmış Sanal Gerçeklik

## Eğitimi Sertifika Programları

Dijital Araştırma, Geliştirme ve Eğitim Merkezi



ITÜ MESLEKİ VE TEKNİK  
ANADOLU LİSESİ



ITÜ VAKFI

0212 261 24 20 <http://itumtal.meb.k12.tr>

### Artırılmış Gerçeklik ve Sanal Gerçeklik (AR / VR) Temel Seviye Eğitimi

#### Proje-1 Unity Programı Kurulumu

Visual Studio Kurulumu  
Vuforia LogIn  
Player Setting  
Unity Menüleri  
3 boyutlu objeler  
Game penceresi  
Temel uygulamalar  
Temel Seviye AR  
Vuforia Setting  
Player Setting  
Assets store

#### Proje-2 Zıplayan Kedi Uygulaması

Import Cat FBX  
Image import  
Vuforia Setting  
DataBase File  
Unity Setting  
Built Setting  
Player Setting  
Built APK

#### Proje-3 Hayvanlar Dünyası

Libre Office ile kitap  
hazırlama  
Vuforia setting  
Unity Setting  
Image Target'a TEXT  
ekleme  
Built Setting  
Player Setting

#### Proje-4 AR Okul Kitabında

Image Target background

Image Download  
AR projeye ses ekleme  
Birden fazla image  
animasyon  
APK hazırlama

#### Proje-5 Mixamo tanıtımı

Login olma  
İnsansı karakter tasarımı  
Animasyon ekleme  
FBX dowload  
AR Karakter  
Vuforia setting  
ADD mixamo animation  
Built APK

#### Proje-6 AR Karakter

Vuforia setting  
Unity setting  
Rig-Animation-Material  
Birden çok karakter  
hazırlama  
Built APK  
Ses ekleme  
APK hazırlama

#### Proje-7 3D tasarım programı kurulumu

Menüleri tanıma  
3D objeler  
Kısa yol tuşları  
Scale-Move-Rotate işlemi  
Temel çizimler  
Basit animasyon hazırlama  
FBX export  
Unity setting  
Vuforia setting

3D animasyon import  
APK hazırlama

#### Proje-8 Cep Telefonu menü

tasarımı  
Buton ekleme  
Sahneden sahneye geçiş  
Canvas setting  
Sahne ekleme  
Visual Studio  
C# kodla sayfası  
Kod yazımı  
PC de test etme  
Telefonda test etme

#### Proje-9 3D obje buton ekleme

Birden fazla obje buton  
ekleme  
Sahneden sahneye geçiş  
Visual Studio  
C# kodla sayfası  
Kod yazımı  
PC de test etme  
Telefonda test etme

#### Proje-10 C# Kodlama

Void start  
Game Object  
GetComponent  
Material Color  
Destroy  
PC de test etme  
APK oluşturma  
Telefonda test etme

#### Proje-11 C# Kodlama

OnMouseEnter

OnMouseExit  
OnMouseDown  
OnMouseUP  
Restart komutu  
Exit komutu  
PC de test etme  
APK oluşturma  
Telefonda test etme

#### Proje-12 LeanTouch

Assets Store  
Unity setting  
Vuforia Setting  
Built APK  
Flip Book  
Import Images on Google  
Asset Store  
Unity Setting  
Vuforia Setting  
Built APK

#### Proje-13 Virtual Reality

Google Cartboard import  
Sample scene  
3D Objeye Ekleme  
Built APK  
VR gözlük ile test  
VR English Book  
3D obje import  
Ses kaydı hazırlama  
C# kodlama  
Objeye ve ses eşleştirme  
APK hazırlama  
Sanal gözlükte test etme

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