



Karayolları Genel Müdürlüğü



**REPORT OF IAESTE TRAINEESHIP PROGRAM
IN TURKEY WITH TCK**

- **IAESTE summer 2011** -

Trainee: Mahdi BenTaieb

Nationality: Tunisia

Grade: 5th year civil engineering student

Contents

1 – Introduction:

2 - Getting to know Turkey (Antalya):

3 - Getting to know TCK (Ankara):

4- Practical Training on Sites:

- a. *Traineeship with TEKFEN infaat (Pozanti):*
- b. *Traineeship with Kollin infaat (Niğde):*



1 – Introduction:

Three months ago, I choose Turkey to make my traineeship in. I came from Tûnûs hoping to have a nice time here, and here I am now having the trip of my life time.

After one month and a half in Turkey now, I discovered that this is not only a beautiful country but also a kind people, great nation, a strong civilization and a magnificent mosaic of cultures.

During this amazing journey, I learned through two projects, one with TEKFEN insaat and the other with KOLLIN insaat, the Turkish way of constructing Highways, tunnels, and viaducts. The combination between technical lessons, conferences, laboratory tests and working on sites, were impressive and helped me to improve my knowledge in the civil engineering field and develop my proficiency as a future engineer.

In this report I tried to resume my experience and tell about what I have seen.



Anitkabir musaulum (Ankara)

2 - Getting to know Turkey (Antalya)

I want to thank TCK and all the responsible in TCK Ankara division and TCK Antalya division for organizing for us the most amazing trip I ever had in Antalya. We have been to the most beautiful beaches there especially Fethye Coast.

We went to see the waterfalls, the historical places of Antalya, and the most beautiful sightseeing there, including Alanya. The accommodation was great in TCK guesthouse. In this trip we have made more than 5000km, and discovered all the beauty of Turkey, the Anatolian civilization. We learned about the historical developments and geography of the country. And how Turkey could through history a Modern Republic, thanks to Mr. Atatürk and his Reforms.



With the deputy of TCK Antalya

3 - Getting to know TCK (Ankara):

After a gorgeous week in Antalya, we get back to Ankara. We started having each day lessons in TCK, in the general directorate of highways of Ankara with the company of Mr.Ilyas Kambali, who was always our man through this journey so far.

In this period from 28/06 to 02/07, we visited the Middle East Technical University and made some tests in their laboratories. We also went regularly to the different divisions:

- Works at Department of Road Design (Computer Aided Highway Design)
- Works at the Technical Research Department
- Works at Department of Construction
- Works at Department of Maintenance
- Works at Department of Equipment end Supply
- Works at the laboratories of TCK: Asphalt Lab, Concrete Lab, Soil Mechanics Lab...



Lesson in Ankara Technical



Lesson in KGM, Structure Department

4- Practical Training on Sites

Traineeship with TEKFEN infaat (Pozanti)



□ TEKFEN in brief:

□ 50 years in the pursuit of technology and science

In 2006 Tekfen enthusiastically celebrated its 50th anniversary. The foundation for the company was laid by three young entrepreneurs, Feyyaz Berker, Nihat Gökyiğit and Necati Akçağlılar when they came together in 1956 to

realize their ideals. The three co-founders first met at the Ministry of Public Works, where they were employed upon returning from civil engineering studies in America. Two of the partners, and later the third one, left their state

offices and teamed up in order to found Tekfen. Tekfen's 50 year history, starting in a ramshackle laboratory and

evolving into an enterprise with a billion dollar turnover, is a true story of success.

□ **Traineeship with TEKFEN:**

□ Project: **ÇİFTEHAN-POZANTI MOTORWAY VIADUCT AND TUNNELS.**

-During this traineeship, TEKFEN team has showed a great sense of hospitality since the first day. They have prepared for us a complete program mixing between serious work and fun.

We have seen many things



Pozanti Map

-Laboratory works:

- * Proctor Test.
- * CBR test.
- * Casagrande test.
- * L.A test.
- * Asphalt test.



Los-Angeles test

-Site works:

- * Works on fire fighting systems.
- * Works in Asphalt plant.

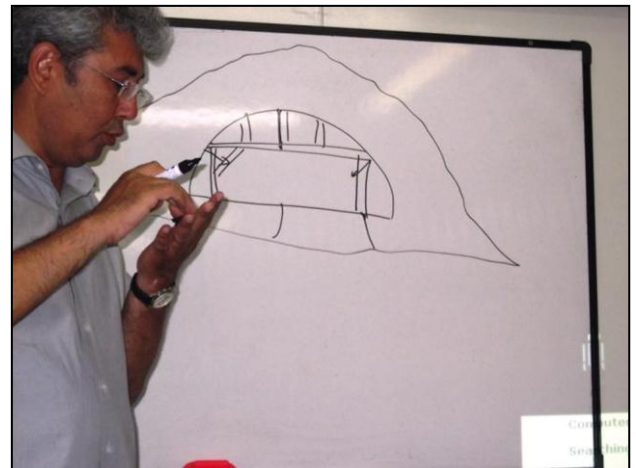
- * Works in Concrete plant.
- * Works in Road Asphalt-Bitumen layers construction.
- * Works on drainage systems.
- * Works in Tunnel survey center.
- * Works on viaduct piles systems.
- * Works in Rock excavation site-quarry.



Pozanti road construction

-Lessons with the engineers and chiefs of TEKFEN:

- *Lesson about security and safety rules in the project with Mr. Cenkiz.
- * Lesson about Tunnel construction with Mr.Ferhat.
- * Lesson about Electrical engineering in Tunnel construction with Mr.Serri.
- * Lesson about Concrete calculations with BOTEK engineers (Control Company).
- * Lesson about road construction with Mr.Ferhat.
- * Lesson about beams, piles, and foundations in viaducts construction with Mr.Artutk.



Mr.Ferhat explaining Tunneling

□ **Journey with TEKFEN:**

- During two weeks, the TEKFEN team was so generous, and gave us all the necessary materials of knowledge in theoretical and practical works of civil engineering. This traineeship was very enriching for me. Beside, during the evenings and weekends, TEKFEN team looked after us very well by taking us to trips in Pozanti, Mersin, Adana and trips in the mountains.



Panoramic view of Pozanti construction site



□ KOLIN in brief:

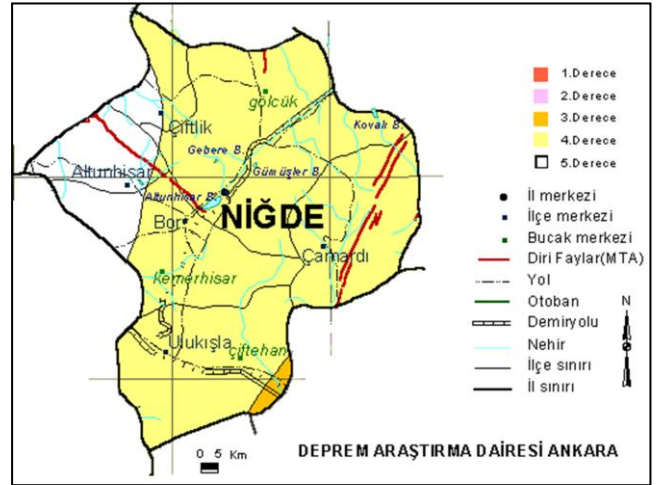
Foundations of Kolin Group of Companies was laid down in 1977 with the establishment of Kolin Construction. The group, exhibiting a sustainable growth example with its stable performance since its establishment, has gained its place among reputable and powerful companies in Turkey. Kolin Group of Companies successfully conducts its activities in the construction-contracting, energy, port operation, and mining and tourism-service sectors. Kolin Group of Companies is known as a high quality and reliable service provider, and a model entrepreneur with strong national investment.

Kolin Construction which became a preferred business partner in several parts of the world as well as in Turkey provides services to a wide constituency which encompasses Libya, Azerbaijan, Uganda and Serbia.

□ Traineeship with KOLIN:

Project: **-KEMERHISAR-POZANTI MOTORWAY**
-KEMERHISAR-NIGDE CONNETION WAY

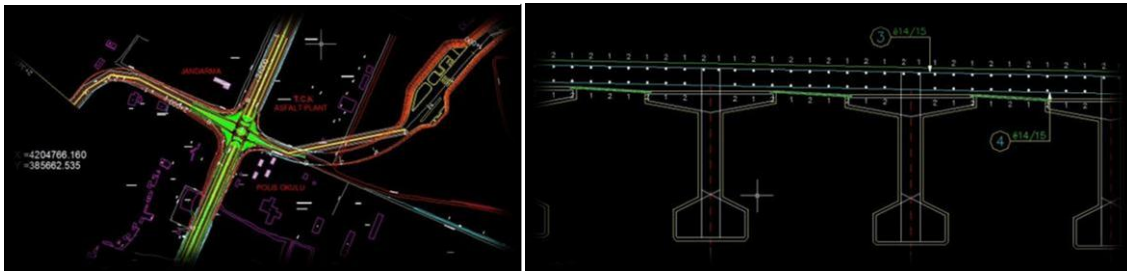
- The work with KOLIN was essentially devoted for the practical training on sites. Because the project progress was 50%, there was so much to see and learn about during those two weeks. I should mention too, that KOLIN has provided us with best accommodation in a nice hotel in the middle of Niğde city, and put a Private bus to ensure our transportation between the city the work plant and the construction sites.



Niğde map

□ *First part: Design control on office.*

The first part of the traineeship was devoted to investigate the plans and control the designs of the project on Computer with the AutoCAD Software.



AutoCAD Niğde motorway plans

□ Second Part: Practical work on site.

Every day during two weeks, we have been regularly to different sites of construction, to discover the reality of practical civil engineering. Those visits were guided by engineers of KOLIN Company, and explained to us with detailed information all the works in progress, these are the most important work site we have seen:

- Works on excavation sites, and earth works.
- Works on Asphalt plant.
- Works in Road construction.
- Works on Shotcrete on slopes.
- Works on drainage systems.
- Works on reinforced walls, and retaining walls.
- Works on digging trenches.



Excavation work



Road construction



Shotcrete works



Panoramic view of the Asphalt plant

My name is Krystian Wysocki. I am from Poland and I study civil engineering at Rzeszow University of Technology. I have finished third year in my University.

I chose this traineeship because my friends Anita and Grzegorz recommended me this practise. They said that Turkey is a very beautiful country and also you can learn a lot about road construction, bridges, management, etc... I am especially interested in road construction and I want to study this specialization. Traineeship in General Direction of Highway was the best choice for me.

We started traineeship on 20th June in Ankara. We went to the training center and we had a lessons about turkish language, history, culture and the most interesting places.

In the first week we visited beautiful places and cities like Konya, Alanya, Antalya, Fetiya, Perge, Side, etc... We had a lot of fun and we really were enjoying on this trip with Mr. Ilyas. Antalya is amazing and wonderful place.

After this week we visited Ankara University to see how works and the mains parts of this, like laboratories and road's tests (Casagrande, CBR, Proctor etc).

At the end of this week we went to Mersin and then to Pozanti to start our traineeship on side. We had practise in TEKFEN Company on the project of the road construction between Ciftehan-Pozanti. The firsts days we met all the main managers of the project and they explained us how will be our job there. Everyday we received lectures on the asphalt pavement and drainage, tunnel excavation, bridge construction, maintenance electro-mechanical works and site management. Further lectures included pile foundations and reinforced concrete beams. We also received practical training in the laboratory (asphalt test, Cassagrande, Proctor, CBR, Los Angeles and many others), concrete and soil samples. After work we had a lot of fun because the training center was between beautiful mountains and the nature was really incredible.

At the end of the stage in Pozanti we went to Nigde to continue our traineeship. We were working in KOLIN Company on the project: Kemerhisar-Pozanti motorway and Kemerhisar- Nigde connection way.

We visited asphalt works, soil works, drainages, bridges, foundations, shotcrete concrete and we learnt about construction's machinery. We also visited interesting places like Kayseri and Kapadokya.

In this practical training I was extending my knowledge in big companies like General Directions of Highway from Turkey. Taking part in the whole investment process and contact with different kinds of work increased my experience and skills, especially on building road and bridge construction. I feel enthusiastic about the possibility of work with professional. Work in your company provided me a many valuable experience that could be fruitful in the future.

To finish this report I must talk about Turkey in general. I was enjoying these days that we have passed here and I really love Turkey. We have learned about interesting things of civil construction, we have met a lot of people and had funny with all of them. I am very glad and pleasure to have chosen this traineeship in General Directions of Highway. Turkey is amazing and wonderful country , people are very kind and helpful. I want to say thanks a lot to everybody who help us and I hope I will visit again in the future this beautiful country and I will meet again all the people that I have met here.

Yours faithfully

Krystian Wysocki

TRAINEESHIP AT THE KGM IN TURKEY

28th July 2011

I am Jose Luis Martinez-Quintanilla Garcia. I am from Spain and I have studied civil engineering at Politecnical University of Valencia. I have finished my university two months ago.

I have chosen this traineeship because my parents were here 6 years ago, and they told to me that I have to visit this places. Also the practise looked very interesting for me, work in the companies and the road construction will be increase and develop my knowledges in civil construction.

We started traineeship on 20th June in Ankara. We went to the training center and we had a lessons about Turkish language, history, culture and to know more about the most interesting places of Turkey.

In the first week we visited beautiful places and cities like Konya, Alanya, Antalya, Fetiya, Perge, Side,etc... We had a lot of fun and we really were enjoying on this trip with Mr. Ilyas.

After this touristic week we visited Ankara University to see how works, and the mains parts of this, like laboratories and road's tests (Casagrande, CBR, Proctor etc).

At the end of this week we went to Mersin and then to Pozanti to start our traineeship on side. We were working in TEKFEN Company on the project of the road construction between Ciftehan-Pozanti. The firsts days we met all the main managers of the project and they explained us how will be our job there. Everyday we received lectures on the asphalt pavement and drainage, tunnel excavation, construction, maintenance electro-mechanical works and site management. Further lectures included pile foundations and reinforced concrete beams. We also received practical training in the laboratory (asphalt test, Casagrande, Proctor, CBR, Los Angeles), concrete and soil samples. After work we had a lot of fun because the training center was between beautiful mountains and the nature was really incredible.

At the end of the stage in Pozanti we went to Nigde to continue our traineeship. We were working in KOLIN Company on the project: Kemerhisar-Pozanti motorway and Kemerhisar- Nigde connection way.

We visited asphalt works, soil works, drainages, bridges, foundations, shotcrete concrete and we learned about construction's machinery. We also visited interesting places like Kayseri and Kapadokya. The last day of work was on Sunday 30th of July.

In this practical training I was extending my knowledge in big companies like General Directions of Highway from Turkey. Taking part in the whole investment process and contact with different kinds of work increased my experience and skills, especially on building road and bridge construction. I feel enthusiastic about the possibility of work with professional. Work in your company provided me a many valuable experience that could be fruitful in the future.

To finish this report I must talk about Turkey in general. I really enjoyed this days that we have passed here. We have learned about interesting things of civil construction, we have met a lot of people and have funny with all of them. I am very happy to have chosen this traineeship in Turkey. I want to say thanks a lot to everybody and I hope to visit again in the future this beautiful country and meet again all the people that I have met here.

Yours faithfully

Jose Luis Martinez-Quintanilla Garcia

I would like to provide information about mine apprenticeship, which I had served in TCK in Turkey. Sharing my opinions about the time that I had spent here and the experience that I gained might be crucial for those who wonder which country to choose. On the 20th of June I arrived to Ankara, where the main centre of TCK is located. Familiarizing me with bosses of this company and other students helped me with the accommodation in a new place. After few days we started a journey, seeing middle and south part of Turkey. Our trip lasted 2 weeks during this time we had visited many beautiful places which helped me to understand and discovered your country. We saw places such as Konia, Antalia, Analia and many more.

On the 3rd of July we went to Pozanti where my training ship begun. Tekfen Company was our host. Every day I was occupied with different occupations. In the mornings we were given lectures which helped us to develop our skills and widen interest. I participated in things like asphalt works, laboratory works etc. Tekfen Company organised trips to nearby cities what gave us not only opportunities to pleasantly pass time but also explore and admire architecture. What is more they provided me all the necessary documents and information to make the absorption of the knowledge more accessible.

Within two weeks we moved to other site remote about one hour driving. Our accommodation was provided by company named Kolin in a city called Nigde. During first day we were introduced with new company and acquainted with new environment. In this company I learned useful abilities which I hope will help me in my future crier. Among them I can mention soil works, road construction and concrete works.

Over all this training ship helped me to gain practical, information and explore beautiful country which is Turkey. I enjoyed taking part in this program which included all essential information about working in my profession. I would advise it to everybody who would like to.

Majed Assaad

The purpose of this letter is to provide information about mine apprenticeship, which I had served in TCK in Turkey. I would like to share my opinions about the time that I had spent here also about the experience that I gained. On the 20th of June I arrived to Ankara, where the main centre of TCK is located, I was introduced to bosses of this company and other students who attended this training ship. After few days we set out on a journey, visiting middle and south part of Turkey. Our trip lasted 2 weeks during this time we had visited many beautiful places which helped me to understand and discovered your country. We saw places such as Konia, Antalia, Analia and many more.

On the 3rd of July we went to Pozanti where my training ship begun. Tekfen Company was our host. Every day I was occupied with diverse activities. In the mornings we were given lectures which helped us to develop our skills and broaden our interest. I was able to see among other things like asphalt works, laboratory works etc. Tekfen Company organised trips to nearby cities what gave us not only opportunities to pleasantly pass time but also explore and admire architecture. What is more they provided me all the necessary documents and information to make the absorption of the knowledge more accessible.

After two weeks we moved to other site about one hour driving. Our accommodation was provided by company named Kolin in a city called Nigde. During first day we were introduced with new company and acquainted with new environment. In this company I learned useful abilities which I hope will help me in my future crier. Among them I can mention soil works, road construction and concrete works.

To sum up this training ship allowed me to put my knowledge into practice, gained practical information and explore beautiful country which is Turkey. Thanks to it I was able to meet great people, see items which I had not seen and experienced unforgettable adventure. I would recommend to everybody visiting Turkey.

Ewa Sołtys

TO WHOM IT MAY CONCERN

2011/08/28

I am Mahsa Farshbaf Maherian from Iran. I study civil engineering. I came to Turkey for traineeship. I started practicing in Turkey on June 20th. I first came to Ankara and I was in Ankara about two days and we had some lessons about Turkey, its history, culture and Turkish language.

Then we visited Konya, Antalya, Analya and Fetiya in five days and we went to karayollari in Antalya and we visited beautiful places in these cities. We went back to Ankara and we had some lessons in laboratories about asphalt, concrete and soil. We visited the Middle East University in Ankara.

We went to Mersin on July 3rd. And we went to Pozanti on June 4th. I participated in practical training with Tekfen Construction, which involved the construction of the Pozanti section of the Adana-Ankara motorway. The project works involved the construction of tunnels, bridges, culverts and many other civil engineering works. We had lessons from eight in the morning until five in the evening. We received lectures on the asphalt pavement and drainage, tunnel excavation, construction, maintenance electro-mechanical works and site management.

Further lectures included pile foundations and reinforced concrete beams. I received practical training in the laboratory, concrete and soil samples. We had two weekends there. The first weekend we went to Adana and visit some places there. The second weekend we were in Mersin.

We left Pozanti on July 18th and went to Nigde. We had practical training with Kolin Company for two weeks. The first day we visited the manager and he explained some about the works there and we went around the city. We started working there the next day on sites. 3days on soil working and 3 days on asphalt we went to kayseri on saterday and visited karayollary there and to Nevsehir on Sunday and we worked on sites until the finishing of the training.

I am pleased with these companies and Karayollari Genel Mudurlugu and IAESTE that prepared this program and gave us the chance to learn about the cultures, work conditions and people all around the world.

Yours sincerely

Mahsa Farshbaf Maherian