

Volkan Sevilgen

Education

- **MSc**, 2003 – 2006 , Istanbul Technical University, Department of Geophysical Engineering, Istanbul
 - **Thesis:** Calculation Earthquake Intensity Distribution Via The Internet
- **BSc**, 1998 - 2003, Istanbul Technical University, Department of Geophysical Engineering, Istanbul.
 - **Thesis:** A New Approach to Rapid Determination of Earthquake Intensity. Advisor: Prof. Dr. Haluk Eyidogan

Experiences

- **Ivano-Frankivsk National Technical University of Oil and Gas, Ukraine**, Trainee, 2003, Studied the Ukrainian programs of seismic modeling and processing.
 - Tesseral 2-D Full-Wave Modeling Package practical tested on the models of real geological objects.
 - Seismic reflection data is processed by Seismic Processing System (SPC-PC)
- **Istanbul Technical University, Department of Geophysical Engineering, Earth Physics Division**, Trainee, 2002, Studies earthquake intensities and investigate a new method to rapid determination of earthquake intensity
 - Studies Modified Mercalli intensity scale.
 - Prepare an intensity questionnaire.
 - Study web programming and building database to collect data via the Internet
 - Create a website to collect data from intensity questionnaire.
 - Create an intensity map from the data
- **The Scientific and Technical Research Council of Turkey (TUBITAK)**, Earth and Marine Sciences Research Institute, Trainee, 2001, Participating in Seismarmara Project, and processed earthquake data.
 - Participating marine seismic researches on French vessel Le Nadir.
 - Participating land seismic researches in deployment seismographs.
 - Participating in preparing Ocean Bottom Seismographs (OBS)
 - Processing earthquake data via PQL-Sac package working on Sun Microsystems.
 - Finding earthquake location and focus mechanism solution.
- **UBM Geophysics Company, Istanbul**, Trainee, 2000, Participating field campaigns and works with seismic methods and different seismic sources.
 - Participating field campaigns seismic refraction and reflection studies.
 - Participating field campaigns to collect data via CDP Techniques
 - Participating soil investigations in residential areas.

- Using different seismic sources that are invented at ITU.

Languages

- Turkish (native), Advance level of English (oral and written), Elementary level of French

Computer Skills

- Seismic Processing Software: Processing Seismic Processing System (SPC - PC), Tesseral 2-D Full Wave Modeling Package
- Mapping Software: Golden Software Surfer, Grapher.
- Programming Languages: Matlab, Php, FORTRAN.
- Office Packages: Microsoft Word, Excel, Power Point, Open Office.
- Web Development Programs: Macromedia Dreamweaver,
- Graphic Design Programs: Adobe Photoshop, Macromedia Fireworks
- Computer Hardware, Networks, TCP-IP, Web Server Management Software
- Database applications with Php/MySql in Linux
- Asterisk IP-PBX, IP Softphone

Hobbies

- Yoga, Chess, Swimming, Football

Personal

- Birth Place and Date: Istanbul, 26.08.1980
- Gender: Male
- Marital Status: Single
- Profession: Geophysical Engineer

Reference

- **Prof. Dr. Haluk Eyidoğan**, Istanbul Technical University, Department of Geophysical Engineering, Earth Physics Division (Chairperson), ITU Maslak Campus, Istanbul Phone: (+90 212) 285 61 74, Mobile: (+90 532) 406 06 58, E-mail: eyidogan@itu.edu.tr
- **Assoc. Prof. Dr. Argun Kocaoğlu**, Istanbul Technical University, Department of Geophysical Engineering, Seismology Division, Seismology and Seismotectonic Research Section, ITU Maslak Campus, Istanbul, Phone: (+90 212) 285 62 57, E-mail: argun@itu.edu.tr.
- **Assoc. Prof. Dr. Serdar Özalaybey**, Scientific and Technical Research Council of Turkey (Tubitak), Marmara Research Center, Earth and Marine Sciences Research Institute, Gebze, Kocaeli, Turkey, +90 262 641 23 00 Ex:4316, E-mail: serdar.ozalaybey@mam.gov.tr.

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Volkan Sevilgen has worked at the Department of geophysics, Ivano-Frankivsk National technical university of oil and gas in Ukraine as a trainee under IAESTE exchange program during september-october 2003 y. He studied the ukrainian programmes of seismic modelling and processing.

During his practical training, Volkan Sevilgen has proved to be a competent, executive and creative student. Excellent possession of English, methods of mathematical data processing and various computer programs have allowed him to carry out successful research.

Within the time of training Volkan received the following occupations:

- practical tested of Tesseral 2-D Full-Wave Modelling Package on the models of real geological object;
- successfully processed seismic data of profiling at the Carpatian area in Seismic Processing System (SPS-PC).

Volkan Sevilgen proved excellent quality to work in groups and has proved to be a friendly and contact person.

In conclusion we have appreciated Volkan Sevilgen as participation in our research work at the department. We would encourage Mr Volkan to continue his research in future.

Supervisor

N. Ganzhenko



Head of the department

V. Stepanjuk



SEISMARMARA

Draft Cruise Report

Leg 2

August 26 – 9 September 2001

Prepared by Satish Singh on September 9, 2001

On behalf of the scientific team

Scientific Team

Satish Singh (Chief Scientist), Alfred Hirn, Sara Bazin, Beatrice de Voogd, Alain Vigner, Angele Ricolleau, Suna Cetin, Neslihan Ocakoglu, Fatish Karako and Volkan Sevilgen

GENAVIR Seismic Cruise

Jean-Charles Geudes, Andre Gourmelon, Jerome Coatanea, Renaud Quinquis, Serge Louzaouen, Maurice Magueur, Claude Gueguen, Yvon Peneaud and Roman Louzaouen

Captain: Herve Piton

Scientific Rational: In the original proposal, we had proposed to carry out a 3D grid over the Cinarcik Basin. It was planned that we shall shoot 7-8 in-line and 5-6 cross-lines at 5-6 km in the Cinarcik Basin. The main objective was to image the faults in detail using seismic reflection data and determine the seismic velocity in the upper crust for seismic imaging and accurate location of earthquakes in the Cinarcik Basin.

During the first half of Leg 1, we shot 7 dip lines and two strike lines in the Cinarcik Basin as a part of the large regional lines in the Marmara Sea. The results were very encouraging. We observed reflections from the basement and down to 8-9 s two-way travel time. These lines were shot at 150 m shot intervals using a very large (8000 cubic inch) low frequency source (8-12 Hz). In order to determine a high resolution image, we used a single bubble source of 2928 cubic inch source. The main strike line was re-shot (1, 23), which traverses through the Cinarcik Basin and 16 other short lines were shot in the Cinarcik Basin. These lines provided a very good coverage in the Cinarcik Basin (Figure 1). They showed variations in the reflectivity image in the basin, primarily the sedimentary sequences, basement in the south, and both north and south bounding faults. These lines covered most of the lines we had initially planned in this basin.

Given the time we had during Leg 2, there were two options: (1) a small 3D box (6.3 X 20 km) with a line spacing of 100 m, which is the largest spacing necessary to migrate data in the third dimension, or a fine grid of lines covering the whole Cinarcik Basin. There were several problems with the real 3D survey. First, the differential GPS on board the ship required a base on land, and the nearest base was in Egypt. Secondly, We could have shot a maximum of about 90 lines at 100 m intervals, but to minimize the time during the turns, which is 1 hour per turn, we needed a minimum of 110 lines, i.e. 11 X 20 km box, and this was not possible. Thirdly,