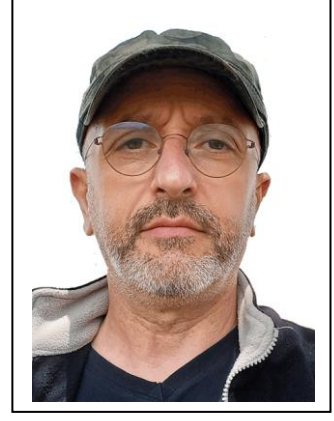


## CURRICULUM VITAE (CV)

**Name and Surname** : Bülent ÖZGÜR  
**Occupation** : Mechanical Engineer  
**Date of Birth** : 31 Ağustos 1970  
**Web Site** : [www.bulentozgur.com](http://www.bulentozgur.com)  
**Working Time** : 31 years  
**Nationality** : T.C.



### **KEY QUALIFICATIONS:**

Metrology, Dimensional Metrology. An Advanced theoretical and practical qualifications on Measurement Techniques and Uncertainty Calculation of Universal measurement machine , Interferometric Measurements , Flatness measurement of surface plate, Line scale measurements, Steel tape and rule measurements, Software development with MS VB6, Device interfacing with software, Solidworks Mechanical 2D/3D design, Training, Consultancy, Assessment (ISO 17025) on Dimensional Metrology.

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### **EDUCATION:**

**Bachelor of Science (B.S)** : YILDIZ Technical University (YTU),  
Mechanical Engineering Department  
1987-1991, İstanbul / TURKEY

**High School** : Haydarpaşa Technical High School  
Machinery Department  
1983 – 1987, İstanbul / TURKEY

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### **EMPLOYMENT HISTORY:**

2024 January – Retired

1999 November – 2024 January  
**TÜBİTAK – National Metrology Institute (UME), Gebze / KOCAELİ**  
Researcher  
Dimensional Group Laboratory

1997 - 1999  
**Makina Takım Endüstrisi A.Ş., Gebze / KOCAELİ**  
in-process Control Engineer

1993 – 1997  
**Metkon Metal Konstrüksiyon San. ve Tic. A.Ş., Gebze / KOCAELİ**  
Project Engineer, Design Engineer, Site Area Engineer

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## **PROJECTS: (As a Project Manager)**

1. Research Project, "New Design 10m Bench – Establishment of Tape Measure and Steel Rule Calibration System", 2016, UME, Bülent Özgür
2. Research Project, "5m bench – Establishment of Tape Measure and Steel Rule Calibration System", 2004 UME, Bülent Özgür, Tanfer Yandayan
3. Research Project, "Establishment of Stage micrometer calibration system", 2008, UME, Bülent Özgür, Eyüp Bağcı, Tanfer Yandayan

## **PROJECTS: (As a Project Participant)**

1. TÜBİTAK-SASO, Wavelength Laboratory, "Long Gauge Block Comparator Manufacturing", Control software for the relevant device was realized.
2. EMRP - JRP SIB58 Angles, Angle Metrology Project, design revision of HPSAG (High Precision Small Angle Generator) with high precision and repeatability operating in the range of ( $\pm 8^\circ$ ) and LRSAG (Large Range Small Angle Generator) operating in the range of ( $\pm 1000^\circ$ ) The design and control software of the relevant devices were carried out.
3. TÜBİTAK-TSE KAMAG1007 Project,"Design, Development and Installation of Reference Systems for Hardness Reference Block Calibration, 2001-2016 - As a Researcher and Designer
4. TÜBİTAK-TSE KAMAG1007 Project," Power Machinery Design, Development and Installation, 2001-2016 - As a Researcher and Designer
5. National Project, 108M281, "3D Geometric Characterization of Cylindrical Parts with Nanometer Precision", Scientific and Technological Research Projects Support Program (TÜBİTAK 1001), 2009-2011, as Researcher (Design and Device Control Software)

## **DESIGN EXPERIENCE**

### ***Within TÜBİTAK UME***

1. UME Hardness Laboratory Project is "Hardness Testing Device" design made for TSE
2. "WATT-BALANCE system 2nd generation" design within the UME WATT BALANCE laboratory
3. Establishing the "Glass ruler, scale and step micrometer calibration system within the UME Dimensional Laboratory, and making the relevant apparatus designs"
4. "Establishment of Steel Ruler and Tape Measure Calibration System" within UME Dimensional Laboratory, Designing the device
5. Designing the apparatus used in the laboratory within the UME Dimensional Laboratory, especially in the calibration of angle devices

## SOFTWARE AND COMPUTER EXPERIENCE

CAD System : SolidWorks  
Operating System : Windows  
Software Language : Microsoft Visual Basic 6.0 (RS232, GPIB, HPIB etc.)  
device communication  
Microsoft Office (Word, Excel, Power point etc.)

### Developed Software:

I supported the creation of many software and designs used within the laboratory and in other laboratories.

I also supported other UME laboratories projects from time to time in terms of design. Some of these studies are

1. "1 m small angle generator" design and user software sold to ASELSAN and SASO-Arabia
2. "Temperature and Humidity Tracking Software", which monitors the ambient temperatures of many laboratories throughout UME for years
3. "Rupture Test – Video Monitoring" software written for Force Lab.

### My developed software for UME Dimensional Lab.

- **STEELRULE** : Steel Ruler and Tape Measure Calibration Program
- **STAGEMOTION** : Stage Micrometer cal. Mask device control software for
- **SAG1mSoftv1** : Calibration software for small angle generator sold to Aselsan  
NANO3D: System motion and control software developed for Tübitak 1001 project 108M281
- **Dynamic ProbKal** : Software for collecting probe data with a multimeter
- **COMPARATOR** : Source code of the software taken from PTB in the laboratory commissioning.
- **LaserProb** : Probe calibration system control and measurement with laser interferometer.data collection software
- **PZT-MW-LASER** : Autocollimator and autocollimator of the angles created in the small angle generator. It reads data simultaneously with laser interferometer angle optics and data collection.

### My developed software for UME's Other Lab.

- **CAPTURE** : For material rupture test (to observe the rupture stages) Image capture software for the desired time period (FORCE LAB.)
- **FORCELENGTH** : Data is collected from the force sensor in the desired time period. (FORCE LAB.)
- **MASSLabPRESSURE** : Data is collected from the pressure sensor in the desired time period. collection (MASS LAB.)
- **LabTEMP** : desired time from UME-made temperature and humidity sensorssoftware that collects data during periods (many UME Labs also haveIt is used to maintain laboratory condition in Dimensional Lab. The data collected in it is sent to the server and the intranet .

## **My Developed software for UME's international projects**

**LabLongGAGE** : Production of UME and SASO Saudi Arabia Metrology Institute Control and user software of the device sold

**LabTEMP** : Production of UME and SASO Saudi Arabia Metrology Institute Temperature monitoring software of the device sold

**LabBENCH** : "Steel Ruler and Strip" modified by UME Meter Calibration System measurement software

**HPSAG, LRSAG** : "High Precision Small Angle Generator Software", "Large Range Small Angle Generator Software", These softwares are for an angle metrology project under EMRP.

## **My developed software for the companies which I worked for before UME**

**CALIBRATION2000** : MTE A.Ş. Periodic monitoring of measuring devices used in by keeping and reporting calibration and maintenance times. Quality control software (VB6 and ACCESS database) that provides maintenance and measuring device calibration.

## **Attended International Comparison**

Participated in the comparison measurements as "Contact Person and Practitioner" on behalf of TÜBİTAK UME.

1. EUROMET.L-S17\_ (Project Nr.875) Steel tape measure - 2006
2. EURAMET.L-S27 \_ (Project Nr.1433) Steel Tape - 2022
3. EURAMET.L-S29 \_ (Project Nr.1488) Stage Micrometer - 2022

## **Executed National Comparison**

• TÜBİTAK UME – "National Comparison of Steel Ruler and Tape Measure", Bülent Özgür, Tanfer Yandayan, UME-G2BF-TR-K005

[https://www.ume.tubitak.gov.tr/sites/images/ume/UME-G2BF-TR-K005\\_Final\\_RAPOR\\_2014\\_1.pdf](https://www.ume.tubitak.gov.tr/sites/images/ume/UME-G2BF-TR-K005_Final_RAPOR_2014_1.pdf)

As a PILOT laboratory, 18 national Level 2 laboratories participated in the comparison measurements and acted as coordinator and rapporteur in the measurements. This is the first comparison about steel tape and rules in TÜRKİYE

## **QUALITY SYSTEM ISO17025 / ISO 9001 EXPERIENCE**

- Supporting the quality system of TUBITAK UME Dimensional Laboratory in accordance with the ISO 17025 standard, preparing the relevant procedures, instructions and forms and making the necessary revisions for their sustainability.
- Official technical expertise duty for auditing and examining the quality system structure of laboratories accredited by TÜRKAK according to the ISO 17025 standard.
- MTE – Machine Tool Industry, where I worked before UME. Inc. Working as a Manufacturing Control Quality Engineer while working under the Quality Assurance Directorate at
- Receiving ISO 9000 quality system training from KALDER (while at MTE A.Ş.).
- Receiving ISO 9000 In-house quality auditor training from KALDER (while at MTE A.Ş.).
- Receiving statistical process control training from KALDER (while at MTE A.Ş.).

## ASSIGNMENTS PARTICIPATED ABROAD

Country of destination	Institution of study	Subject of Duty	Duration and year of duty
<b>FINLAND</b>	Metrology Institute (VTT MIKES), ESPOO	"Dimensional and Related Measurements at the macroscopic Scale" conference and making 2 articles and 2 poster presentations in English as the first author.	16.10.2017 20.10.2017
<b>AUSTRIA</b>	Metrology Institute (BEV),	"EMPIR PRT , SRT-r06 Length measurements for volume metrology" representing TÜBİTAK UME at the meeting	21.06.2017 24.06.2017
<b>SAUDI ARABIA</b>	Metrology Institute (SASO)	<p><b>Make a Device</b> The control software and temperature sensors monitoring software of the UME-made "Long Gauge Block Comparator" device were developed by me. (2 software)</p> <p><b>Make a Device</b> "5m BENCH tape measure and steel rule calibration device" and development of the control software by me (1 piece of software), creation of instructions and uncertainty budgets.</p> <p><b>Technical Training</b> Giving training on "Granite and Steel Table Calibration with Talyvel 6 Level meter device".</p> <p><b>Technical Training</b> Giving training on "Use of Laser Interferometer and distance optics in linear measurements".</p>	2014 – 2016  5 different assignments at 5 different times
<b>POLAND</b>	Metrology Institute (GUM)	SIB-58 Participation as project staff for project presentation. Task: Preparation of LRSAG and HPSAG 2 control and user data collection software used in the project	3 Days 04-06.06.2014
<b>SWISS</b>	LEICA St. Gallen Geodesy Instrument Manufacturing Company (METAS), Bern	Examination of the constructions of EDM Calibration systems.	3 Days 09-12.04.2006
		Laboratory on-site inspections	2 Days 12-14.04.2006 2006
<b>GERMANY</b>	Physikalisch Technische Bundesanstalt (PTB)	Examination of Steel Tape and Ruler measuring systems at PTB before installation at UME and Angle standards measurements	2 weeks May 2000

## **SCIENTIFIC PUBLICATIONS:**

1. "New Modular 10m-Bench System for Traceable Measurements of Steel Tapes and Rulers at TUBİTAK UME", Bülent ÖZGÜR, Okhan GANIÖĞLU, Muharrem AŞAR, Ali Ekber KARADAĞ, MacroScale 2017 - Finland  
Recent developments in traceable dimensional measurements
2. "Upgrade of 5m-Bench System for Traceable Measurements of Tapes and Rules at SASO-NMCC Dimensional Laboratory", Bülent ÖZGÜR, Okhan GANIÖĞLU, Nasser Al-Qahtani2, Faisal Al-Qahtani2, MacroScale 2017 - Finland  
Recent developments in traceable dimensional measurements
3. "Application of the differential Fabry–Perot interferometer in angle metrology", M Çelik, E Şahin, T Yandayan, R Hamid, A Akgöz, B Özgür, M Çetintaş and A Demir. Measurement Science and Technology, 20 January 2016
4. "Design and Development of Brinell-Vickers Hardness Standard Machine", Kuzu, C., Pelit, E., Dogan, C., Okur, A., Meral, I., Ozgur, B., Kazmanli, K, XXI IMEKO World Congress ,Prag (30/08-04/09/2015)
5. "A motorized 5 m tape comparator for traceable measurements of tapes and rules", Tanfer YANDAYAN, Bülent ÖZGÜR, 25.11.2013
6. "High precision small angle generator for realization of SI unit of plane angle and calibration of high precision autocollimators", Yandayan T., Ozgur B., Karaboce N. and Yaman O. To be published in Meas. Sci. Technol. 23 (2012). The poster is available [www.macroScale.org](http://www.macroScale.org)
7. "Small Angle Generators for Angle Measurement", International Metrology Conference CAFMET 2010, Tanfer Yandayan, Nuray Karaböce, Bülent Özgür, Orhan Yaman
8. "Çizgi skalalı standartlar ve ölçüm yöntemleri", TMMOB Makine Mühendisleri Odası, 7.Ulusal Metroloji Kongresi 30 Ekim-1 Kasım 2008 İzmir - TÜRKİYE, Bülent ÖZGÜR, Doç.Dr. Tanfer YANDAYAN
9. "5m Bench Çelik Cetvel VE Şerit Metre Kalibrasyon Sistemi", TMMOB Makine Mühendisleri Odası, 6. Ulusal Metroloji Kongresi, 17-18 Kasım 2005, Eskişehir, TÜRKİYE, Bülent ÖZGÜR, Dr. Tanfer YANDAYAN
10. "5m measurement system for treacable measurements of tapes and rules" Recent Developments in Dimensional Metrology – SPIE Conference, San Diego, USA, 1-8 August 2003, Dr. Tanfer YANDAYAN, Bülent ÖZGÜR"

## **OTHER PUBLICATIONS:**

1. Technical Report, "Electronic Distance Meter (EDM) and Theodolite Calibration Training Report ", April 2006
2. Technical Report, "Steel Tape and Rule Calibration System Report ", December 2004
3. Technical Report, "Stage Micrometer Calibration System Report ", January 2009

## **Membership in Professional Societies:**

The member of UCTEA Union of the Chamber of Turkish Engineers and Architects  
İSTANBUL

## **TRAININGS:**

1. C Programming Language Basic Training  
C & System Programmers Association, April 2010
2. Short Gauge Blocks And Their Calibration  
Turkish National Metrology Institute (UME), February 2010
3. Short Gauge Block Comparators And Their Calibration  
Turkish National Metrology Institute (UME), February 2010
4. Office Ergonomics  
Turkish National Metrology Institute (UME), October 2009
5. Occupational Health and Safety  
Turkish National Metrology Institute (UME), March 2009
6. Presentation Techniques and Development of Presentation Skills  
Turkish Institute for Industrial Management (TUSSIDE), November 2008
7. MATLAB for Building Graphical user Interface  
FİGES, June 2008
8. MATLAB Fundamentals and Programing Techniques  
FİGES, June 2008
9. Presentation Techniques and Development of Presentation Skills  
Turkish Institute for Industrial Management (TUSSIDE), November 2008
10. Research and Development Engineering and Specialization Training  
Turkish Institute for Industrial Management (TUSSIDE), February 2008
11. First Aid Training  
İlk ilkyardım Eğitim merkezi, May 2007
12. Project Management  
Turkish Institute for Industrial Management (TUSSIDE), September 2006
13. Fundamental Quality Concepts and Institutional Culture  
Turkish Institute for Industrial Management (TUSSIDE), March 2006
14. TS EN ISO/IEC 17025 Assessor Training  
Turkish National Metrology Institute (UME), December 2005
15. Strategic Management  
Turkish Institute for Industrial Management (TUSSIDE), October 2005
16. Measurement Uncertainty  
Turkish National Metrology Institute (UME), 2000
17. Organized Excellent Performance Team,  
YGM, August 1998
18. Statistical Process Control  
KALDER, April 1998
19. ZKM CNC/W Precision Coordinate Measuring Instrument

- MTE. A.Ş. / OKM JENA , January 1998
20. ULM Universal Horizontal Metroscope  
MTE. A.Ş. / OKM JENA , January 1998
21. ISO 9000 Quality Assurance Assessor Training for Company  
KALDER, May, 1997
22. ISO 9000 Quality Assurance System Training  
KALDER , April 1997

### **LANGUAGES:**

English (Intermediate level in reading, writing and speaking) (YÖKDİL 2017 – 52,5)

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### **CERTIFICATION**

I certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

17.01.2024  
Bülent ÖZGÜR  
Mechanical Engineering