# CURRICULUM VITAE (CV)

Name and Surname
Occupation
Date of Birth
Web Site
Working Time
Nationality

: Bülent ÖZGÜR
: Mechanical Engineer
: 31 Ağustos 1970
: www.bulentozgur.com
: 31 years
: 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.

#### **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	

#### **EMPLOYMENT HISTORY:**

2024 January - Retired

1999 November – 2024 Januarry **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

## PROJECTS: (As a Project Manager)

- 1. 1. Research Project, "New Design 10m Bench Establishment of Tape Measure and Steel Rule Calibration System", 2016, UME, Bülent Özgür
- 2. 2. Research Project, "5m bench Establishment of Tape Measure and Steel Rule Calibration System", 2004 UME, Bülent Özgür, Tanfer Yandayan
- 3. 3rd 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.
- 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 (± 8") and LRSAG (Large Range Small Angle Generator) operating in the range of (± 1000") The design and control software of the relevant devices were carried out.
- 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
- 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 connections 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. Force Lab. "Rupture Test Video Monitoring" software written for

#### 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 havelt 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 MetrologyInstituteControl and user software of the device soldLabTEMP: Production of UME and SASO Saudi Arabia MetrologyInstituteTemperature monitoring software of the device soldLabBENCH: "Steel Ruler and Strip" modified by UME Meter CalibrationSystem measurement software

#### 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

#### 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**

As a PILOT laboratory, 18 national Level 2 laboratories participated in the comparison measurements and acted as coordinator and rapporteur in the measurements.

• TÜBİTAK UME – "National Comparison of Steel Ruler and Tape Measure" - 18 National participating laboratories, Bülent Özgür, Tanfer Yandayan

### 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
FINLAND	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
AUSTRİA	Metrology Institute (BEV),	"EMPIR PRT , SRT-r06 Length measurements for volume metrology" representing TÜBİTAK UME at the meeting	21.06.2017 24.06.2017
SAUDI ARABIA	Metrology Institute (SASO)	Make a Device The control software and temperature sensors monitoring software of the UME- made "Long Gauge Block Comparator" device were developed by me. (2 software)	2014 – 2016 5 different assignments at 5 different times
		Make a Device "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.	
		<b>Technical Training</b> Giving training on "Granite and Steel Table Calibration with Talyvel 6 Level meter device".	
		<b>Technical Training</b> Giving training on "Use of Laser Interferometer and distance optics in linear measurements".	
POLAND	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
SWISS LEICA St. Gallen Geodesy Instrum Manufacturing Compa (METAS), Bern	LEICA St. Gallen Geodesy Instrument	Examination of the constructions of EDM Calibration systems.	3 Days 09-12.04.2006
	Manufacturing Company (METAS), Bern	Laboratory on-site inspections	2 Days 12-14.04.2006 2006
GERMANY	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- "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
- 2- "A motorized 5 m tape comparator for traceable measurements of tapes and rules", Tanfer YANDAYAN, Bülent ÖZGÜR, 25.11.2013
- 3- "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
- 4- "Small Angle Generators for Angle Measurement", International Metrology Conference CAFMET 2010, Tanfer Yandayan, Nuray Karaböce, Bülent Özgür, Orhan Yaman
- 5- "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
- 6- "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
- 7- "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"
- 8- "New Modular 10m-Bench System for Traceable Measurements of Steel Tapes and Rulers at TUBİTAK UME", Bülent ÖZGÜR, Okhan GANİOĞLU, Muharrem AŞAR, Ali Ekber KARADAĞ, MacroScale 2017 - Finland Recent developments in traceable dimensional measurements
- 9- "Upgrade of 5m-Bench System for Traceable Measurements of Tapes and Rules at SASO-NMCC Dimensional Laboratory", Bülent ÖZGÜR, Okhan GANİOĞLU, Nasser Al-Qahtani2, Faisal Al-Qahtani2, MacroScale 2017 - Finland Recent developments in traceable dimensional measurements

#### **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 ISTANBUL

## TRAININGS:

- 1. C Programming Language Basic Training
  - C & System Programmers Association, April 2010
- Short Gauge Blocks And Their Calibration
   Turkish National Metrology Institute (UME), February 2010
- Short Gauge Block Comparators And Their Calibration Turkish National Metrology Institute (UME), February 2010
- Office Ergonomics Turkish National Metrology Institute (UME), October 2009
- Occupational Health and Safety Turkish National Metrology Institute (UME), March 2009
- Presentation Techniques and Development of Presentation Skills Turkish Institute for Industrial Management (TUSSIDE), November 2008
- MATLAB for Building Graphical user Interface FİGES, June 2008
- MATLAB Fundementals and Programing Techniques FIGES, June 2008
- 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
- First Aid Training
   İlk ilkyardım Eğitim merkezi, May 2007
- 12. Project Management Turkish Institute for Industrial Management (TUSSIDE), September 2006
- Fundamental Quality Concepts and Institutional Culture Turkish Institute for Industrial Management (TUSSIDE), March 2006
- TS EN ISO/IEC 17025 Assessor Training Turkish National Metrology Institute (UME), December 2005
- Strategic Management
   Turkish Institute for Industrial Management (TUSSIDE), October 2005
- Measurement Uncertainty Turkish National Metrology Institute (UME), 2000
- Organized Excellent Performance Team, YGM, August 1998
- Statistical Process Control KALDER, April 1998
- 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)

### **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