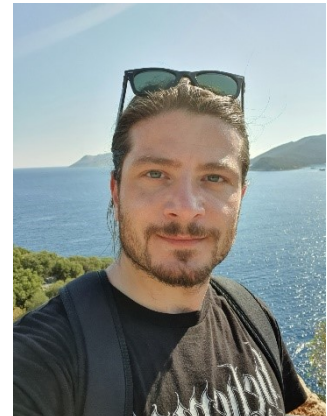# MEHMET RAIF TASDEMIR

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Professional experiences in engineering calculations, design and manufacturing. In order to see my portfolio, you may visit my websites above.

PERSONAL DETAILS

Birth: 05 April 1984, Turkey
Nationality: Turkish
Marital Status: Single

CHRONOLOGICAL SUMMARY

I started my career at **ALFA-TEK** where main business is production for food industry. The company builds stainless steel storage (2,10,...,80tonne), progress tanks and all kind of food progressing systems. I was responsible for preparing design and manufacturing drawings (AutoCAD, Inventor) of these systems for our workshop.

At my second workplace, **KENAR ENGINEERING, I** prepared 3D design (Solidworks) and manufacturing drawings (AutoCAD) for DAM mechanical structures. At the same time, I started *Information Systems Program* at Hacettepe Univ..

I worked more than 50 DAM projects both national and international level at **ST GRUP DiZAYN**. My responsibilities were doing mechanical calculations (MathCAD, Maple), 3D design of the structures (Solidworks, Bentley Hammer, ANSYS, Rstab), manufacturing drawings (AutoCAD) and controlling the manufacturings. In this company, I prepared engineering calculations reports for big institutions like as *DSi (State Hydraulic Works of TURKEY)*, *TPAO* (Turkish Petroleum Corporation) and *U.S. Army Corps of Engineers.*

At the same time, I started working as an ANSYS Workbench course assistant at **CHAMBER OF MECHANICAL ENGINEERS** Ankara branch on the weekends, while I was working full-time at **ST GRUP**.

My **FREELANCE** journey has started after leaving **CHAMBER OF MECHANICAL ENGINEERS** and today still continues. I worked on projects such as pipeline bridge, portable water storage tank, DAM mechanics (radial/tainter gate, wheel gate, stoplogs, penstock, slidegates), cryogenic storage tank, maintenance bridge, rack analysis, medical devices and suspended access equipment calculations. I completed my biggest **FREELANCE** job in 2021 and during my two years of work, I created 1100 pages of engineering calculation reports. I worked for ANDRITZ Hydro Turkey branch for this job.

At **NANOMAGNETICS INSTRUMENTS**, I started as an only member of mechanical design team, at the end my team reached six members(3 mech. eng., 1 optical eng., 1 industrial design eng.). There, my responsibilities were managing my team, making engineering calculations (MathCAD, SMath), analysis (ANSYS, JMAG) and preparing tailored system designs for customer needs. In general, the company manufactures material characterization devices, but we also carried out various defense industry projects for the state.

WORK EXPERIENCES

08. 2021 – Present

TURKISH AEROSPACE– ANKARA –
Mechanical Engineer

07. 2016 – 06.2021

NANOMAGNETICS INSTRUMENTS – ANKARA –
Mechanical Design Team Lead

- Static, magnetic transient and electromagnet optimization analysis,
- Thermal analysis for cryogenic temperatures,
- Static and vibration analysis for mechanical systems,
- Development of special system designs according to customer needs,
- Improving existing devices,
- Ensuring coordination with the manufacturing unit.

01. 2015 – 08.2021

FREELANCE –
Mechanical Design / Engineering Calculations

- Engineering analysis for TÜBİTAK (THE SCIENTIFIC AND TECHNOLOGICAL RESEARCH COUNCIL OF TURKEY), KOSGEB (Small and Medium Enterprises Development Organization of Turkey) or other companies needs,
- Engineering calculations for Hydroelectric Power Plants mechanics.

06. 2011 - 02. 2016

ST GRUP DiZAYN – ANKARA –
Design Engineer

- Responsible for project management of the dam design processes,
- Prepared manufacturing drawings of the dams' mechanical equipments and Finite element simulation with Ansys,
- Prepared dam gate, gate hoists and penstock design calculations.

04. 2015 – 04. 2016

CHAMBER OF MECHANICAL ENGINEERS – ANKARA –
ANSYS Course, Assistant

- Ansys Workbench training including; static, geometry editing, mesh editing, multi-part structural static analysis, rigid dynamic analysis, thermal analysis, shape optimization, linear buckling, fatigue analysis, free and pre-stressed vibration analysis.

07. 2008 – 06. 2009

KENAR ENGINEERING AND CONSULTANCY – ANKARA –
Design Engineer

- Responsible for project management of the dam design processes,
- Prepared assembly and manufacturing drawings of the dams' mechanical equipments,
- Used *DriveWorks* program to create time reduction in project design processes,
- Created technical drawings by using *dynamic blocks* in *AutoCAD* program and lead standardization and time reduction in design processes.

| 12. 2006 – 06. 2008 | **ALFA-TEK – ANKARA –** 🖱 |
| | Design Engineer |

- Project management and design of food manufacturing and food processing tanks used in food industry,
- Preparation of technical drawings and documents that are necessary for the production,
- Lead transformation from 2D to 3D design methods in the company which resulted time saving,
  Programming warehouse tracking program for control purposes by using VisualBasic programming language.

C E R T I F I C A T E S

2016	**CHAMBER OF MECHANICAL ENGINEERS – ANKARA**
	COMPUTATIONAL FLUID DYNAMICS (FLUENT & FLOWVISION)
2014	**CHAMBER OF MECHANICAL ENGINEERS – ANKARA**
	ANSYS
2006	**CHAMBER OF MECHANICAL ENGINEERS – ANKARA**
	AUTODESK INVENTOR PROFESSIONAL
2006	**CHAMBER OF MECHANICAL ENGINEERS – ANKARA**
	AUTODESK AUTOCAD

E D U C A T I O N

| 2008 – 2009 | **HACETTEPE UNIVERSITY, - ANKARA** |
| | Information Systems – M.S. Program (Special Student) |

- Courses; Structured Programming, Object-Oriented Programming, Data Structures and Algorithms

| 2002 – 2006 | **KIRIKKALE UNIVERSITY - KIRIKKALE** |
| | Faculty of Engineering – Mechanical Engineering |

| 1998 – 2001 | **YÜCE SCIENCE SCHOOL - ANKARA** |

S K I L L S

Calculation	MathCAD, Maple, MATLAB, RSTAB, SHAPE-THIN, Bently Hammer,
Analysis	ANSYS, Fluent, Flowvision, ANSA, Patran, JMAG,
Design	AutoCAD, SOLIDWORKS, Inventor, Simens NX, PTC Creo, SpaceClaim
Programming	C, x86 Assembly, Visual Basic/.Net,
Languages	Turkish (Mother tongue), English (Good).

ADDITIONAL INFORMATION

Driver License	Class B
Smoking	No Smoking
Hobbies	Manga/Anime,
	CTF (capture the flag hacking challenges) #Rank,
	Retro handheld console collector,
	Travel,
	Skateboarding

REFERENCES

Excellent professional and academic references available upon request