

Prof. KAHRAMAN ALBAYRAK

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Supervised Theses

ALBAYRAK K., Design, construction and performance evaluation of axial flow fans, Postgraduate, H.Özgür(Student), 2019

ALBAYRAK K., Design, construction and performance evaluation of a constant air volume device for HVAC systems, Postgraduate, C.Ekin(Student), 2018

ALBAYRAK K., Implicit lattice boltzmann method for laminar/turbulent flows, Doctorate, F.Çevik(Student), 2016

ALBAYRAK K., Design, construction and performance evaluation of a centrifugal pump for an energy efficient dishwasher, Postgraduate, D.Turgul(Student), 2015

ALBAYRAK K., Prediction of drag force on gimbal system via balance technique and wake integration method, Postgraduate, E.Yeşilyurt(Student), 2014

ALBAYRAK K., Vortex generator design for subsonic inlets, Postgraduate, B.Nasuhbeyoğlu(Student), 2014

ALBAYRAK K., Drag measurement of different car bodies via balance technique and momentum integral method, Postgraduate, G.Çaylan(Student), 2014

ALBAYRAK K., Design, construction and performance evaluation of a variable pitch axial flow pump, Postgraduate, Ö.Canbaz(Student), 2013

ALBAYRAK K., Design and performance analysis of a pump-turbine system using computational fluid dynamics, Postgraduate, M.Yıldız(Student), 2011

ALBAYRAK K., Conceptual design, testing and manufacturing of an industrial type electro-hydraulic vacuum sweeper, Postgraduate, E.Şahin(Student), 2011

ALBAYRAK K., Performance evaluation and cfd analysis of a positive displacement diaphragm pump, Postgraduate, G.Gökçe(Student), 2011

ALBAYRAK K., Numerical investigations of lateral jets for missile aerodynamics, Postgraduate, E.Ağsarlıoğlu(Student), 2011

ALBAYRAK K., Design of an axial flow fan for a vertical wind tunnel for paratroopers, Postgraduate, F.Çevik(Student), 2010

ALBAYRAK K., Design considerations and performance evaluation of a surge tank for diaphragm pump operation, Postgraduate, Ş.Özdemir(Student), 2010

ALBAYRAK K., Design and performance evaluation of a fuel filter, Postgraduate, H.Ayrancı(Student), 2010

ALBAYRAK K., Conceptual design and analysis of an industrial type vacuum sweeper, Postgraduate, B.Aygün(Student), 2009

ALBAYRAK K., Design and performance evaluation of mixed flow pumps by numerical experimentation and axial thrust investigation I, Postgraduate, A.Cirit(Student), 2007

ALBAYRAK K., Numerical simulation of non-reacting turbulent flows over a constant temperature solid surface in regression, Postgraduate, C.Karaeren(Student), 2007

ALBAYRAK K., Design improvements on mixed flow pumps by means of computational fluid dynamics, Postgraduate, O.Özgen(Student), 2006

ALBAYRAK K., Thrust vector control by secondary injection, Postgraduate, E.Erdem(Student), 2006

ALBAYRAK K., Design, construction and performance evaluation of a submersible pump with numerical experimentation, Postgraduate, E.Engin(Student), 2005

ALBAYRAK K., Computer-aided design of horizontal-axis wind turbine blades, Postgraduate, S.Duran(Student), 2005
ALBAYRAK K., Design and construction of an educational pump bench with operational controls, Postgraduate, B.Güner(Student), 2004
ALBAYRAK K., A parametric study of surge and flow instabilities in compression systems, Postgraduate, D.Burtaşkıray(Student), 2001
ALBAYRAK K., Design, construction and performance evaluation of a vertical turbine pump, Postgraduate, K.Onur(Student), 1999
ALBAYRAK K., Investigation of three-dimensional roughness effect on the separation of boundary layer over a smooth flat plate, Postgraduate, E.Koç(Student), 1994

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A COMPARISON OF THE THERMAL PERFORMANCE OF A CONVENTIONAL FIN BLOCK AND PARTIALLY COPPER AND ALUMINUM FOAM EMBEDDED HEAT SINKS**
Ataer S. K., Yamali C., ALBAYRAK K.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.40, no.1, pp.155-165, 2020 (SCI-Expanded)
- II. **Use of artificial neural networks for the prediction of time-dependent air speed variation in metro stations**
KOC G., SERT C., Albayrak K.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART F-JOURNAL OF RAIL AND RAPID TRANSIT, vol.232, no.8, pp.2186-2197, 2018 (SCI-Expanded)
- III. **A Fully Implicit Finite Volume Lattice Boltzmann Method for Turbulent Flow**
Cevik F., Albayrak K.
COMMUNICATIONS IN COMPUTATIONAL PHYSICS, vol.22, no.2, pp.393-421, 2017 (SCI-Expanded)
- IV. **Prediction of the maximum air velocities created by metro trains using an artificial neural network approach**
KOC G., SERT C., Albayrak K.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART F-JOURNAL OF RAIL AND RAPID TRANSIT, vol.228, no.7, pp.759-767, 2014 (SCI-Expanded)
- V. **Prediction of Maximum Air Velocities Induced by Metro Trains in Tunnels Using Artificial Neural Networks**
Koc G., Sert C., Albayrak K.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART F-JOURNAL OF RAIL AND RAPID TRANSIT, vol.228, pp.759-767, 2014 (SCI-Expanded)
- VI. **Experimental investigation of three rotating parachutes**
Yagiz O. E., Albayrak K., Yidirim R. O.
JOURNAL OF AIRCRAFT, vol.43, no.5, pp.1574-1577, 2006 (SCI-Expanded)
- VII. **Free convection flow of Newtonian fluid along a vertical plate embedded in a double layer porous medium**
Beithou N., Aybar H., Albayrak K., Erenay O.
JSME INTERNATIONAL JOURNAL SERIES B-FLUIDS AND THERMAL ENGINEERING, vol.44, no.2, pp.255-261, 2001 (SCI-Expanded)
- VIII. **Oil entrainment in vertical refrigerant piping**
Kesim S., Albayrak K., Ileri A.
INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.23, no.8, pp.626-631, 2000 (SCI-Expanded)
- IX. **DESIGN OF A LOW-SPEED AXISYMMETRICAL WIND-TUNNEL CONTRACTION**
ALBAYRAK K.
JOURNAL OF WIND ENGINEERING AND INDUSTRIAL AERODYNAMICS, vol.37, no.1, pp.79-86, 1991 (SCI-

Expanded)

X. TURBULENT BOUNDARY-LAYER AND THE EFFECT OF CRITICAL ROUGHNESS REYNOLDS-NUMBERS ON THE RECOVERY LENGTH BEHIND AN ISOLATED SPHERICAL ROUGHNESS ELEMENT UNDER VARIABLE PRESSURE-GRADIENT

ALBAYRAK K., GOKSEL O.

EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.3, no.2, pp.184-190, 1990 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. Utilization of neural networks for simulating vehicle induced air velocity in underground tunnels

Koç G., ALBAYRAK K., SERT C.

6th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2012, Vienna, Austria, 10 - 14 September 2012, pp.3405-3416

II. A numerical study of thermoacoustic oscillations in a rectangular channel using CMSIP method

Akyuzlu K., ALBAYRAK K., Karaeren C.

ASME 2009 International Mechanical Engineering Congress and Exposition, IMECE2009, Lake Buena Vista, FL, United States Of America, 13 - 19 November 2009, vol.9, pp.943-953

Metrics

Publication: 21

Citation (WoS): 32

Citation (Scopus): 35

H-Index (WoS): 2

H-Index (Scopus): 3

Non Academic Experience

ODTÜ, Öğretim Üyesi