

# CENK ÇELİK

## PROF.

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAB-5989-2020

ScopusID: 24485132800

Yoksis Researcher ID: 153167



## Learning Knowledge

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Post Doctorate 2011 - 2011	University College London, Engineering Faculty, Department Of Chemical Engineering /The Centre For Co2 Technology, United Kingdom
Post Doctorate 2008 - 2008	Hokkaido University, Engineering Faculty, Department Of Chemical Engineering/Center For Advanced Research Of Energy Conversion Materials, Japan
Doctorate 2002 - 2006	Kocaeli University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, Turkey
Postgraduate 1999 - 2002	Kocaeli University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, Turkey
Undergraduate 1995 - 1999	Kocaeli University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey

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## Dissertations

Doctorate, Doğrudan Sodyum Borhidrüllü Yakıt Pili Proses Parametrelerinin Verim Üzerine Etkisinin İncelenmesi, Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı /Termodinamik Ve Isı Tekniği Abd, 2006  
Postgraduate, Buz Oluşumunun Deneysel Olarak İncelenmesi, Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı/Termodinamik Ve Isı Tekniği Abd, 2002

## Academic Titles / Tasks

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Professor 2019 - Continues	Kocaeli University, Mühendislik Fakültesi, Makina Mühendisliği
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Associate Professor  
2013 - 2019

Kocaeli University, Mühendislik Fakültesi, Makina Mühendisliği

Assistant Professor  
2008 - 2013

Kocaeli University, Mühendislik Fakültesi, Makina Mühendisliği

Research Assistant  
2000 - 2008

Kocaeli University, Mühendislik Fakültesi, Makina Mühendisliği

## Supported Projects

1. OĞUZ ERDOĞAN F., ÇELİK C., ERDOĞAN T., Project Supported by Higher Education Institutions, Mürdüm Eriği Çekirdeklerinden Elde Edilen Aktif Karbon Nanotüp Zeolit MCM41 ve Paladyum Kullanılarak Hazırlanan Kompozitlerin Hidrojen Depolama Kapasitelerinin Belirlenmesi, 2023 - Continues
2. ZOR S., ÇELİK C., Kılıç C., Project Supported by Higher Education Institutions, Doğrudan Etanol Yakıt Pillerinde DEYP Metal Köpüğe Kaplanmış Paladyumun Anot Elektrotu Olarak Kullanılması, 2021 - 2022
3. Becerikli F., Çelik C., TUBITAK Project, Manufacturing of PEM Electrolyser Gas Compressor that Produces 700 ml/min of Hydrogen and can be Pressurized for Fuel Cells (PEM-SOFC) That Produce Electricity up to 1 kW, 2020 - 2022
4. Çelik C., Kibar M. E., Akay R. G., TUBITAK Project, Development of Electrochemical Hydrogen Purifier and Compressor System (EHPC) for Pure and Pressurized Hydrogen Production from Reformate Gases, 2019 - 2022
5. Çelik C., Ertürk A. T., Saraç H. İ., Akın A. N., Akay R. G., Yılmaz M., TUBITAK Project, Development of a Direct Borohydride Fuel Cell (DBFC) Consisting Of Novel Membrane Electrode Assemblies And The Investigation Of The Effects Of Operation Parameters On The Performance, 2016 - 2019
6. ÇELİK C., TÜRKMEN A. C., Project Supported by Higher Education Institutions, YAKIT PİLLERİNDE ANOT TARAFI AKIŞ ALANI TASARIMININ PERFORMANSA ETKİSİ, 2017 - 2018
7. ÇELİK C., ÇAĞLAYAN İ., Project Supported by Higher Education Institutions, DOĞRUDAN SODYUM BORHİDRÜRLÜ YAKIT PİLLERİNİN (DBHYP) ANOT KISMINDA KATALİZÖR DESTEĞİ OLARAK STANDART KARBON KAĞIT/KUMAŞ YERİNE GAZ DİFÜZYON TABAKASI OLARAK KULLANILMAK ÜZERE METALİK KÖPÜĞÜN KARAKTERİZASYONU, 2017 - 2018
8. SARAÇ H. İ., ÇELİK C., OPAN M., ÜNLÜ M., Project Supported by Higher Education Institutions, KIRSAL YERLEŞİM ALANLARINDA YENİLENEBİLİR ENERJİ KAYNAKLARINDAN OPTİMAL ENERJİ ÜRETİMİ VE YÖNETİMİ, 2016 - 2018
9. Özdemir E., ÇELİK C., TUBITAK Project, Kocaeli Üniversitesi Ar-Ge Strateji Belgesi (Enerji), 2016 - 2018
10. ÇELİK C., Other International Funding Programs, Development of advanced solid oxide fuel cell systems through engineering design, materials innovation and thermodynamic analyses, 2011 - 2011
11. ÇELİK C., Project Supported by Other Private Institutions, Soğutucu Serpantinlerde Optimizasyon (H476 Ford Cargo projesi kapsamında en uygun soğutma performansı sağlayacak radyatör tasarımı), 2008 - 2009
12. Çelik C., Yiğit K. S., Saraç H. İ., TUBITAK Project, Bitkisel ve hayvansal atıklardan biyogaz üretimi ve entegre enerji üretim sisteminde kullanımı, 2007 - 2009
13. ÇELİK C., Other International Funding Programs, Greenhouse Gas Mitigation Technology Development Program, 2008 - 2008

## Scholarships

International Postdoctoral Research Fellowship Programme ( Directorate of Science Fellowships and Grant Programmes (BİDEB))(BİDEB 2219), TUBITAK, 2011 - 2011

Post Doctoral Research Fellowship, Other International Organizations, 2008 - 2008

## Published journal articles indexed by SCI, SSCI, and AHCI

- 1. Hydrogen storage behavior of zeolite/graphene, zeolite/multiwalled carbon nanotube and zeolite/green plum stones-based activated carbon composites**  
OĞUZ ERDOĞAN F., ÇELİK C., Turkmen A. C., Sadak A. E., Cucu E.  
JOURNAL OF ENERGY STORAGE, vol.72, 2023 (SCI-Expanded)
- 2. Impact of the temperature variation on the thermal conductivity of gas diffusion layers for polymer electrolyte fuel cells**  
AK A., Espinoza-Andaluz M., ÇELİK C., Sunden B., Serhad Soyhan H.  
FUEL, vol.345, 2023 (SCI-Expanded)
- 3. Hydrogen sorption studies of palladium decorated graphene nanoplatelets and carbon samples**  
Oğuz Erdoğan F., Çelik C., Türkmen A. C., Sadak A. E., Cücü E.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.48, no.56, pp.21476-21486, 2023 (SCI-Expanded)
- 4. Hydrogen sorption studies of palladium decorated graphene nanoplatelets and carbon samples**  
Erdogan F., ÇELİK C., Turkmen A. C., Sadak A. E., Cucu E.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.48, no.56, pp.21476-21486, 2023 (SCI-Expanded)
- 5. Designing a new bell-type primary air nozzle for large-scale circulating fluidized bed boilers**  
Çam M. M., Soyhan H. S., Qubeissi M. A., ÇELİK C.  
Fuel, vol.335, 2023 (SCI-Expanded)
- 6. Metal foams as a gas diffusion layer in direct borohydride fuel cells**  
ERTÜRK A. T., Ergin U., Kadioglu T., Turkmen A. C., ÇELİK C.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.55, pp.23373-23380, 2022 (SCI-Expanded)
- 7. Preparation and characterization of bimetallic Pd-Zn nanoparticles on carbon for borohydride electrooxidation**  
Dogan Ozcan M., AKAY R. G., ÇELİK C., AKIN A. N.  
REACTION KINETICS MECHANISMS AND CATALYSIS, vol.134, no.1, pp.163-177, 2021 (SCI-Expanded)
- 8. Investigation of the performance of a direct borohydride fuel cell with low Pt/C catalyst loading under different operating conditions**  
Kadioglu T., Turkmen A. C., Ata K. C., Akay R. G., Tıkız İ., Çelik C.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.45, no.60, pp.35006-35012, 2020 (SCI-Expanded)
- 9. Investigation of the effects of SPEEK and its clay composite membranes on the performance of Direct Borohydride Fuel Cell**  
Ata K. C., Kadioğlu T., Türkmen A. C., Çelik C., Akay R. G.  
International Journal of Hydrogen Energy, vol.45, pp.5430-5437, 2020 (SCI-Expanded)
- 10. Analysis of wind energy potential; A case study of Kocaeli University campus**  
Caglayan I., Tikiz İ., Turkmen A. C., Çelik C., Soyhan G. (.  
Fuel, vol.253, pp.1333-1341, 2019 (SCI-Expanded)
- 11. Optimal energy production from wind and hydroelectric power plants**  
Opan M., Ünlü M., Özkale C., Çelik C., Saraç H. İ.  
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.41, pp.2219-2232, 2019 (SCI-Expanded)
- 12. The statistical relationship between flow channel geometry and pressure drop in a direct methanol fuel cell with parallel channels**  
TURKMEN A. C., ÇELİK C., ESEN H.  
International Journal of Hydrogen Energy, vol.44, no.34, pp.18939-18950, 2019 (SCI-Expanded)
- 13. Effect of morphology of activated carbon supports for cobalt boride catalysts on the hydrolysis reaction of sodium borohydride**  
Kibar M. E., Engintepe E., Ozdemir E., Kaplan Ö., Çelik C., Akin A. N.  
INTERNATIONAL JOURNAL OF CHEMICAL KINETICS, vol.50, pp.839-845, 2018 (SCI-Expanded)
- 14. Evaluation of SPEEK/PBI blend membranes for possible direct borohydride fuel cell (DBFC) application**

- AKAY R. G., ATA K. C., KADIOGLU T., ÇELİK C.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, no.40, pp.18702-18711, 2018 (SCI-Expanded)
15. **The effect of different gas diffusion layer porosity on proton exchange membrane fuel cells**  
TURKMEN A. C., ÇELİK C.  
FUEL, vol.222, pp.465-474, 2018 (SCI-Expanded)
  16. **Energy harvesting with the piezoelectric material integrated shoe**  
Turkmen A. C., Çelik C.  
ENERGY, vol.150, pp.556-564, 2018 (SCI-Expanded)
  17. **An experimental research on woodchip drying using a screw conveyor dryer**  
KAPLAN Ö., ÇELİK C.  
FUEL, vol.215, pp.468-473, 2018 (SCI-Expanded)
  18. **Analysis of a priority flow control valve with hydraulic system simulation model**  
Coskun G., KOLCUOGLU T., DOGRAMACI T., Turkmen A. C., ÇELİK C., Soyhan H. S.  
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.39, no.5, pp.1597-1605, 2017 (SCI-Expanded)
  19. **Analysis of fuel cell vehicles with advisor software**  
TURKMEN A. C., SOLMAZ S., ÇELİK C.  
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.70, pp.1066-1071, 2017 (SCI-Expanded)
  20. **Decision analysis application intended for selection of a power plant running on renewable energy sources**  
Ozkale C., Celik C., Turkmen A. C., Cakmaz E. S.  
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.70, pp.1011-1021, 2017 (SCI-Expanded)
  21. **Emission characteristics of an hydrogen-CH<sub>4</sub> fuelled spark ignition engine**  
ACIKGOZ B., ÇELİK C., Soyhan H. S., GOKALP B., KARABAG B.  
FUEL, vol.159, pp.298-307, 2015 (SCI-Expanded)
  22. **Investigation of Ni Foam Effect for Direct Borohydride Fuel Cell**  
Celik C., SAN F. G. B., SARAÇ H. İ.  
FUEL CELLS, vol.12, no.6, pp.1027-1031, 2012 (SCI-Expanded)
  23. **An experimental study on performance and emission characteristics of a methane-hydrogen fuelled gasoline engine**  
ACIKGOZ B., ÇELİK C.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.37, no.23, pp.18492-18497, 2012 (SCI-Expanded)
  24. **Woodchip drying in a screw conveyor dryer**  
KAPLAN Ö., ÇELİK C.  
JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, vol.4, no.6, 2012 (SCI-Expanded)
  25. **Modeling of an HCCI engine by using CFD and detailed chemical kinetic model**  
Toksoz S., Coskun G., Celik C., Soyhan H. S., Buyukkaya E., Halici F.  
ENERGY EDUCATION SCIENCE AND TECHNOLOGY PART A-ENERGY SCIENCE AND RESEARCH, vol.29, no.1, pp.427-432, 2012 (SCI-Expanded)
  26. **Improving the direct borohydride fuel cell performance with thiourea as the additive in the sodium borohydride solution**  
ÇELİK C., SAN F. G. B., SARAÇ H. İ.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.35, no.16, pp.8678-8682, 2010 (SCI-Expanded)
  27. **Influences of sodium borohydride concentration on direct borohydride fuel cell performance**  
ÇELİK C., SAN F. G. B., SARAÇ H. İ.  
JOURNAL OF POWER SOURCES, vol.195, no.9, pp.2599-2603, 2010 (SCI-Expanded)
  28. **Effects of operation conditions on direct borohydride fuel cell performance**  
ÇELİK C., SAN F. G. B., SARAÇ H. İ.  
JOURNAL OF POWER SOURCES, vol.185, no.1, pp.197-201, 2008 (SCI-Expanded)
  29. **Energy efficiency in pumps**  
Kaya D., Yagmur E. A., Yiğit K. S., Kılıç F., Eren A. S., Çelik C.

## Articles Published in Other Journals

- 1. NUMERICAL INVESTIGATION OF HVAC SYSTEMS OF A NAVAL SHIP COMPARTMENT: NATURAL VENTILATION AND AIR-CONDITIONING**  
ACAR A., URYAN M., DOĞRUL A., KARAKURT A. S., celik c.  
Journal of Naval Sciences and Engineering, vol.19, no.1, pp.77-100, 2023 (Peer-Reviewed Journal)
- 2. Gemi Makinelerinde Egzoz Atık Isısının Geri Kazanımı İçin Bir Termoelektrik Sistemin Sonlu Elemanlar Yöntemiyle Tasarımı ve Analizi**  
TOL G., ÇAĞLAYAN İ., TIKIZ İ., ÇELİK C.  
Journal of Maritime Research: Amphora, vol.1, no.2, pp.85-101, 2022 (Peer-Reviewed Journal)
- 3. Battery Caused Fires in Electric Vehicles**  
Şenyürek Ü., SOYHAN H. S., ÇELİK C.  
Mühendislikte Yakıtlar, Yangın ve Yanma Dergisi, vol.10, no.1, pp.21-27, 2022 (Peer-Reviewed Journal)
- 4. Kocaeli İli Yangın Karakteristiklerinin İncelenmesi**  
PEKŞEN M. F., Kaya Y., UYAROĞLU Y., SOYHAN H. S., ÇELİK C.  
Mühendislikte Yakıtlar, Yangın ve Yanma Dergisi, vol.10, no.1, pp.9-20, 2022 (Peer-Reviewed Journal)
- 5. Experimental Investigation of Intake Manifold Design Effect on Diesel Engine Performance**  
DEMİR Ü., Çetinkaya O., Türkmen A. C., ÇELİK C.  
International Journal of Automotive Science and Technology, vol.6, no.2, pp.127-134, 2022 (Peer-Reviewed Journal)
- 6. Investigation of the cross-section area geometry effect on the performance of PEM fuel cell**  
TÜRKMEN A. C., ASEDova G., TIKIZ İ., ÇELİK V., ÇELİK C.  
Uluslararası Yakıtlar Yanma Ve Yangın Dergisi, vol.9, no.1, pp.42-49, 2021 (Peer-Reviewed Journal)
- 7. THE EFFECT OF DIFFERENT INTAKE MANIFOLD GEOMETRIES ON SINGLE-CYLINDER DIESEL ENGINE SOOT FORMATION AND PERFORMANCE**  
DEMİR Ü., ÇETİNKAYA O., TURKMEN A. C., ÇELİK C.  
International Journal of Mechanical and Production Engineering (IJMPE), vol.6, pp.30-34, 2018 (Peer-Reviewed Journal)
- 8. Autonomous Car Parking System with Various Trajectories**  
EŞİYOK B., TURKMEN A. C., KAPLAN Ö., ÇELİK C.  
Periodicals of Engineering and Natural Sciences (PEN), 2017 (Peer-Reviewed Journal)
- 9. The Analysis of The Risks of Renewable Energy Resources by Using Fuzzy FMEA Technique**  
HÜLYA Y., ÖZKALE C., ÖZCAN B., ÇELİK C.  
Dumlupınar University Journal Of Social Sciences, pp.227-242, 2014 (Peer-Reviewed Journal)

## Books & Book Chapters

- 1. Chapter 28 : Investigation of Airframe in terms of Aerodynamics**  
Türkmen A. C., Yıldız F., ÇELİK C., SARAÇ H. İ.  
in: Sustainable Aviation Energy and Environmental Issues, Karakoc HT, Ozerdem BM, Sogut ZM, Colpan OC, Altuntas O, Editor, Springer, İsviçre, pp.343-350, 2016
- 2. Chapter 28 : Investigation of Airframe in terms of Aerodynamics**  
TURKMEN A. C., YILDIZ F., ÇELİK C., SARAÇ H. İ.  
in: Sustainable Aviation Energy and Environmental Issues, Karakoc HT, Ozerdem BM, Sogut ZM, Colpan OC, Altuntas O, Editor, Springer International Publishing, pp.343-350, 2016

## Refereed Congress / Symposium Publications in Proceedings

1. **INVESTIGATION OF LOW-TEMPERATURE POLYMER ELECTROLYTE MEMBRANE FOR ELECTROCHEMICAL HYDROGEN COMPRESSOR**  
Türkmen A. C., Meydan C. E., Ağtoprak K., Acidereli H., Akay R. G., Kibar M. E., Çelik C.  
23th World Hydrogen Energy Conference (WHEC 2022), İstanbul, Turkey, 26 June 2022, pp.80
2. **Investigation and Modeling of Flow Channels for Direct Borohydride Fuel Cell**  
Türkmen A. C., Ata K. C., Menteşe G., Çelik C.  
5th International Hydrogen Technologies Congress - Online, Niğde, Turkey, 26 - 28 May 2021, pp.55-57
3. **Low-Cost Membrane-Electrode-Assembly (MEA) Production for Direct Borohydride Fuel Cell**  
Ata K. C., Çağlayan İ., Türkmen A. C., Kadioğlu T., Akay R. G., Çelik C.  
5th International Hydrogen Technologies Congress - Online, Niğde, Turkey, 26 - 28 May 2021, pp.61-63
4. **Use of Waste Heat Emitted from A Fuel Cell in Thermoelectric Modules**  
YILGIN B., TÜRKMEN A. C., KELEŞ F. B., TIKIZ İ., ÇELİK C.  
11th INTERNATIONAL 100% RENEWABLE ENERGY CONFERENCE, Turkey, 20 - 23 May 2021, pp.12
5. **Determination of the Effect of Serial and Parallel Flow Configuration on Pressure Drop of Oxidant Side of the Fuel Cell**  
TIKIZ İ., ÇELİK C., SARAÇ H. İ.  
Isı Bilimi ve Tekniği Kongresi (ULIBTK 2019), 11 - 14 September 2019
6. **Investigation of the Performance of a Direct Borohydride Fuel Cell with Low Pt/CCatalyst Loading**  
ÇELİK C., TIKIZ İ., AKAY R. G.  
4th International Hydrogen Technologies Congress (IHTEC-2019), 20 - 23 June 2019
7. **Investigation of the Performance of a Direct Borohydride Fuel Cell with Low Pd/C Catalyst Loading Under Different Operating Conditions**  
ÇELİK C., TIKIZ İ., SARAÇ H. İ.  
4th International Hydrogen Technologies Congress (IHTEC-2019), 20 - 23 June 2019
8. **Kinetics of Sodium Borohydride Oxidation Reaction on Carbon-Supported Pd-Zn Catalysts**  
Özcan M. D., ÇELİK C., AKAY R. G., AKIN A. N.  
4th International Hydrogen Technologies Congress, Edirne, Turkey, 20 - 23 June 2019, pp.219
9. **Hydrogen Production Performances of Solar, Wind and Their Hybrid System**  
TIKIZ İ., ÇELİK C.  
IMASCON 2019, 26 - 28 April 2019
10. **COMPARISON OF RENEWABLE ENERGY RESOURCES with ANALYTIC HIERARCHY PROCESS METHOD**  
ÖZKALE C., ÇELİK C., TÜRKMEN A. C., ÇAKMAZ E. S.  
INTERNATIONAL CONFERENCE on EMERGING TRENDS in ENGINEERING and TECHNOLOGY, 27 - 28 March 2019
11. **A Comparison of the Various Motor Type for Usage at Fuel Cell Vehicles**  
TIKIZ İ., ÇELİK C.  
7th International Conference on Renewable Fuels Combustion and Fire FCE 2019, 10 - 13 March 2019
12. **Preparation And Characterization Of Polyvinyl Alcohol/Chitosan Blend Membranes For Direct Borohydride Fuel Cells**  
AKAY R. G., ÇELİK C., KADIOĞLU T., Turkmen A. C.  
22nd World Hydrogen Energy Congress (WHEC 2018), Rio de Janeiro, Brazil, 17 - 20 June 2018
13. **Development Of Novel Cation Exchange Blend Membranes For Direct-Abstract**  
AKAY R. G., ÇELİK C., Turkmen A. C., Ata K. C.  
22nd World Hydrogen Energy Congress (WHEC 2018), Rio de Janeiro, Brazil, 17 - 20 June 2018
14. **Preparation And Characterization Of Carbon-Supported Pd-Zn Nanoparticles As Anode Catalyst For Direct Borohydride Fuel Cell**  
DOĞAN ÖZCAN M., ÇELİK C., AKIN A. N., AKAY R. G.  
22nd World Hydrogen Energy Congress ( WHEC 2018), Rio-De-Janeiro, Brazil, 17 - 22 June 2018
15. **Development and Electrochemical Characterization of Pd-Co/C Bimetallic Alloy Electrocatalysts**  
GÖZLÜ C., ÇELİK C., AKIN A. N., AKAY R. G.

22nd World Hydrogen Energy Congress ( WHEC 2018), Rio-De-Janeiro, Brazil, 17 - 22 June 2018

16. **Kırsal Bir Yerleşim Bölgesinde Yenilenebilir Enerji Kaynaklarından Optimal Enerji Üretimi**  
OPAN M., ÖZKALE C., ÜNLÜ M., ÇELİK C., SARAÇ H. İ.  
3rd INTERNATIONAL CONGRESS ON ENGINEERING, ARCHITECTURE AND DESIGN, Kocaeli, Turkey, 4 - 05 May 2018, pp.327-329
17. **Ceyhan Nehri Havzası'nda Çoklu Baraj Gölleri Üzerinde Yüzer Fotovoltaik Sistemlerin Kullanıldığı Bir Sistemde Optimal Enerji Üretimi**  
ÜNLÜ M., OPAN M., ÖZKALE C., ÇELİK C., SARAÇ H. İ.  
3rd INTERNATIONAL CONGRESS ON ENGINEERING, ARCHITECTURE AND DESIGN, Kocaeli, Turkey, 4 - 05 May 2018, pp.332-333
18. **Rüzgar ve Hidroelektrik Enerji Santralleri'nden Kırsal Bir Yerleşim Bölgesinde Optimal Enerji Üretimi**  
ÖZKALE C., OPAN M., ÜNLÜ M., ÇELİK C., SARAÇ H. İ.  
3RD INTERNATIONAL CONGRESS ON ENGINEERING, ARCHITECTURE AND DESIGN, Kocaeli, Turkey, 4 - 05 May 2018, pp.29-30
19. **The effect of different intake manifold geometries on single-cylinder diesel engine soot formation and performance**  
DEMİR Ü., Çetinkaya O., Türkmen A. C., ÇELİK C.  
158th International Conference on Recent Innovations in Engineering and Technology, Tokyo, Japan, 29 - 30 March 2018
20. **Electrochemical Characterization of Carbon-Supported Bimetallic PdZn Nanoparticles as-Tam metin**  
AKAY R. G., AKIN A. N., ÇELİK C., Özcan M. D.  
3. International Hydrogen Technologies Congress, ALANYA, Turkey, 15 - 18 March 2018
21. **Preparation and Characterization of Polyvinyl Alcohol/Chitosan Blended Anion Exchange Membranes for Direct Borohydride Fuel Cells**  
AKAY R. G., KADIOĞLU T., ÇELİK C.  
3. International Hydrogen Technologies Congress, ALANYA, Turkey, 15 March 2018
22. **A Comparative Study on the Determination of Borohydride Permeability of Cation Exchange Membranes for DBFC**  
AKAY R. G., ÇELİK C., Ata K. C., Kadioğlu T.  
3. International Hydrogen Technologies Congress, ALANYA, Turkey, 15 - 18 March 2018
23. **Electrochemical Characterization of Carbon-Supported Bimetallic Pd-Zn Nanoparticles as Anode Catalyst for Direct Borohydride Fuel Cells**  
AKAY R. G., ÖZCAN DOĞAN M., ÇELİK C., AKIN A. N.  
3rd International Hydrogen Technologies Congress (IHTEC-2018), Alanya, Turkey, 15 - 18 March 2018
24. **Novel Pd-Co/C Bimetallic Alloy Electrocatalyst for Direct Borohydride Fuel Cell**  
GÖZLÜ C., ÇELİK C., AKIN A. N., AKAY R. G.  
3rd International Hydrogen Technologies Congress (IHTEC-2018), Alanya, Turkey, 15 - 18 March 2018
25. **Analysis of a Ground-Source Heat Pump in Thermodynamic Means and The Economic Importance of Heat Pumps**  
YILDIZ Ç., SARAÇ H. İ., ÇELİK C.  
II. "European Congress on Economic Issues New Trends in Economics", Kocaeli, Turkey, 16 - 18 November 2017, pp.91
26. **Novel Direct Borohydride Fuel Cell Membranes based on SPEEK and PBI**  
AKAY R. G., ATA K. C., ÇELİK C.  
mESC-IS 2017 2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
27. **International Energy Policies and Reflections of Turkey**  
Çelik C., Yılmaz Genç S., Narçiçek N.  
IV.IMCOFE International Multidisciplinary Congress of Eurasia, İstanbul, Turkey, 23 - 25 August 2017, pp.535-546
28. **Novel Direct Borohydride Fuel Cell Membranes Based on Polybenzimidazole and Sulfonated**

## **Polyether-ether-ketone**

AKAY R. G., Ata K. C., Çelik C.

2nd Int. Symposium on Materials for Energy Storage and Conversion, Nevşehir, Turkey, 26 - 28 September 2017

29. **Preparation of Carbon supported PdZn Nanoalloy Anode Catalyst for Direct Borohydride Fuel Cell**  
DOĞAN ÖZCAN M., ÇELİK C., AKIN A. N.  
4th Anatolian School of Catalysis (ASC-4), 11 - 14 September 2017
30. **Study on hydrolysis activity of NaBH<sub>4</sub> with Co-B catalysts supported on different activated carbons**  
KİBAR M. E., ENGİNTEPE E., ÖZDEMİR E., KAPLAN Ö., ÇELİK C., KAYIRAN BEYAZ s., AKIN A. N.  
13 th European Congress on Catalysis – EuropaCat-XIII, 27 - 31 August 2017
31. **Türkiye'nin Enerji Hareketliliği Bağlamında Enerji Tüketimi İle Ekonomik Büyümesi Arasındaki İlişkinin Tespitine Yönelik Bir Değerlendirme**  
Çelik C., Yılmaz Genç S., İnce M. R.  
International Congress Of Management Economy And Policy, İstanbul, Turkey, 20 - 21 May 2017, pp.893-911
32. **Türkiye'nin Enerji Hareketliliği Bağlamında Enerji Tüketimi İle Ekonomik Büyümesi Arasındaki İlişkinin Tespitine Yönelik Bir Değerlendirme**  
Çelik C., Yılmaz Genç S., İnce M. R.  
International Congress of Management, Economy and Policy, İstanbul, Turkey, 20 - 21 May 2017, pp.893-909
33. **Development of a Direct Borohydride Fuel Cell (DBFC) Consisting of Novel Membrane Electrode Assemblies**  
GÖZLÜ C., AKAY R. G., ÇELİK C., AKIN A. N.  
nd World Conference On Technology, Innovation and Enterpreneurship, 12 - 14 May 2017
34. **The Effect of Ballistic Investigation on Small Arms Design**  
ÖZYILMAZ Ö., KAPLAN Ö., ÇELİK C.  
III INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (ICENS2017), 3 - 07 May 2017
35. **Fluid-Solid Interaction On Wind Turbine Blades**  
YILDIZ F., TURKMEN A. C., YILDIZ Ç., SARAÇ H. İ., ÇELİK C.  
III. International Conference on Engineering and Natural Sciences, 3 - 07 May 2017
36. **Autonomous car parking system with various trajectories**  
eşiyok b., türkmen a. c., KAPLAN Ö., ÇELİK C.  
III INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (ICENS2017), 3 - 07 May 2017
37. **Analysis of a Priority Flow Control Valve with Hydraulic System Simulation Model**  
Kolcuoğlu T., SOYHAN H. S., COŞKUN G., ÇELİK C.  
9th International Conference on Sustainable Energy & Environmental Protection, 22 - 25 September 2016, pp.351-358
38. **TERMAL KONFOR DEĞERLENDİRME STRATEJİSİ**  
DENİZ F., ÇELİK C.  
1. INTERNATIONAL ACADEMIC RESEARCH CONGRESS, 3 - 05 November 2016, pp.329
39. **SOĞUK ORTAMLAR ve İREQ YÖNTEMİ GIDA SEKTÖRÜNDE ÖRNEK ÇALIŞMA**  
DENİZ F., ÇELİK C.  
1 INTERNATIONAL ACADEMIC RESEARCH CONGRESS, Antalya, Turkey, 3 - 05 November 2016, pp.3300-3305
40. **Energy harvesting with the piezoelectric material integrated shoe**  
Türkmen A. C., ÇELİK C.  
2nd SOUTH EAST EUROPEAN CONFERENCE ON SUSTAINABLE DEVELOPMENT OF ENERGY, WATER AND ENVIRONMENT SYSTEMS, 15 - 18 June 2016, pp.177
41. **Modeling the impact of number of fin and material on the heat sink performance with CFD analysis**  
TURKMEN A. C., YILDIZ F., ÇELİK C., SUNDEN B.  
2nd SOUTH EAST EUROPEAN CONFERENCE ON SUSTAINABLE DEVELOPMENT OF ENERGY, WATER AND ENVIRONMENT SYSTEMS, 15 - 18 June 2016, pp.194
42. **Blade profile analysis for wind turbines by ansys software**  
YILDIZ F., TURKMEN A. C., YILDIZ Ç., ÇELİK C., SARAÇ H. İ.  
1st International Mediterranean Science and Engineering Congress, 26 - 28 October 2016, pp.1473-1476

43. **MODELLING OF PERFORMANCE AND EXHAUST EMISSIONS OF A GASOLINE ENGINE FUELLED METHANE HYDROGEN USING SVR MODEL**  
 ÇELİK C., ACIKGOZ B., SOYHAN H. S., YABANOVA İ., DEMİRTAŞ V., YUMURTACI M.  
 9th International Conference on Sustainable Energy & Environmental Protection, 22 - 25 September 2016, pp.47-54
44. **Modeling in cylinder gas motions in internal combustion engines by using CFD**  
 DEMİRTAŞ V., BAYRAKÇEKEN H., ALBAYRAK ÇEPER B., SOYHAN H. S., ÇELİK C., COŞKUN G., DEMİR Ü.  
 20. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 14 - 16 June 2015
45. **Evaluation of The Renewable Energy Sources by Using AHP and Promethee Multi Criteria Decision Making Methods**  
 ÖZKALE C., AKBULUT B., GÜLEÇ P., ÇELİK C.  
 16. Uluslararası Ekonometri, Yöneylem Araştırması ve İstatistik Sempozyumu (EYİ2015), 7 - 12 May 2015
46. **Pitch Angle Analysis of NACA 2415 Airfoil**  
 YILDIZ F., TURKMEN A. C., ÇELİK C., SARAÇ H. İ.  
 World Congress on Engineering (WCE 2015), London, Canada, 1 - 03 July 2015, pp.1107-1110
47. **Determination of drying characteristics of Turkish pine Pinus brutia woodchips in a screw dryer in various drying conditions**  
 KAPLAN Ö., ÇELİK C., OLGUN H., Alkassir A.  
 6th International Ege Energy Symposium & Exhibition, İzmir, Turkey, 28 - 30 June 2012
48. **Doğrudan Borhidrüllü Yakıt Pili Performansı Üzerine Sodyum Borhidrür Derişimin Etkileri**  
 ÇELİK C., BOYACI SAN F. G., SARAÇ H. İ.  
 ULIBTK'09 17. Ulusal Isı Bilimi ve Tekniği Kongresi, Sivas, Turkey, 13 June 2009, pp.1233-1237
49. **Yakıt Debinin Doğrudan Borhidrüllü Yakıt Pili Performansı Üzerine Etkisinin İncelenmesi**  
 ÇELİK C., BOYACI SAN F. G., SARAÇ H. İ.  
 ULIBTK'09 17. Ulusal Isı Bilimi ve Tekniği Kongresi, Sivas, Turkey, 13 June 2009, pp.1229-1232
50. **Optimum operating strategies for liquid fed direct borohydride fuel cells**  
 ÇELİK C., Boyaci San F. G., SARAÇ H. İ.  
 8 th Japan – Korea Symposium on mterials and Interfaces International Symposium on Frontiers in Chemical Engineering, Sapporo, Japan, 5 - 07 November 2008, pp.82
51. **Destruction Analysis Depend On The Wearing With Oil Analysis Program**  
 Gökalp B., SARAÇ H. İ., ÇELİK C.  
 8th International Fracture Conference, İstanbul, Turkey, 7 - 09 November 2007, vol.1, pp.651-664
52. **Doğrudan Sodyum Borhidrüllü Yakıt Pili**  
 ÇELİK C., SARAÇ H. İ., BOYACI SAN F. G.  
 ULIBTK'07 16. Ulusal Isı Bilimi ve Tekniği Kongresi, Kayseri, Turkey, 20 June 2007, vol.2, pp.646-650
53. **Taşıt Radyatörü Isıl Performans Test Sonuçlarının NTU Yöntemi Kullanılarak İrdelenmesi**  
 METİN M., PARMAKSIZOĞLU C., SARAÇ H. İ., ÇELİK C.  
 ULIBTK'07 16. Ulusal Isı Bilimi ve Tekniği Kongresi, Kayseri, Turkey, 20 June 2007, vol.2, pp.651-655
54. **Farklı İşletim Şartlarının Pd Anot ve Pt Katotlu Doğrudan Sodyum Borhidrüllü Yakıt Pili (DSBHYP) Performansı Üzerine Etkisinin İncelenmesi**  
 ÇELİK C., BOYACI SAN F. G., SARAÇ H. İ.  
 ULIBTK'07 16. Ulusal Isı Bilimi ve Tekniği Kongresi, Kayseri, Turkey, 20 June 2007, vol.2, pp.641-645
55. **Buhar Türbin Tahrikli Pompalarda Enerji Verimliliği**  
 YİÇİT K. S., KAYA D., EREN A. S., YAĞMUR E. A., ÇELİK C.  
 Enerji verimliliği kongresi, Kocaeli, Turkey, 15 June 2007, pp.223-231

## Academic and Administrative Experience

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2020 - Continues	Director of Vocational School	Kocaeli University, Kocaeli Meslek Yüksekokulu
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2020 - Continues	<b>Member of the Senate</b>	Kocaeli University, Kocaeli Meslek Yüksekokulu
2017 - 2022	<b>Fakülte Yönetim Kurulu Üyesi</b>	Kocaeli University, Ziraat Fakültesi
2015 - 2020	<b>Director of Vocational School</b>	Kocaeli University, Ali Rıza Veziroğlu Meslek Yüksekokulu
2015 - 2020	<b>Member of the Senate</b>	Kocaeli University, Ali Rıza Veziroğlu Meslek Yüksekokulu
2015 - 2016	<b>Fakülte Yönetim Kurulu Üyesi</b>	Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü / İş Sağlığı Ve Güvenliği Anabilim Dalı
2015 - 2015	<b>Director of Vocational School</b>	Kocaeli Üniversitesi, İzmit Meslek Yüksekokulu
2008 - 2014	<b>Erasmus Program Institutional Coordinator</b>	Kocaeli Üniversitesi, Mühendislik Fakültesi / Makine Mühendisliği Bölümü

## Courses

Thermodynamics, Undergraduate, 2023 - 2024  
Termik Turbo Makineler, Undergraduate, 2017 - 2018  
Enerji Yönetimi, Undergraduate, 2017 - 2018  
Termodinamik, Undergraduate, 2017 - 2018  
Alternatif Enerji Kaynakları, Undergraduate, 2017 - 2018

## Advising Theses

Çelik C., Modeling of Distributor Plate-Nozzle System for Circulating Fluidized Bed Boilers, Doctorate, M.Metin(Student), 2023  
Çelik C., Investigation of the effect of palladium-coated nickel foam on performance in direct borohydride fuel cell, Postgraduate, B.SARAÇ(Student), 2019  
Çelik C., Searching of the effect of Pd-Zn coated copper foam directly to performance in Borohydride fuel cell, Postgraduate, İ.ÇAĞLAYAN(Student), 2019  
Çelik C., The effect of flow channel geometry and fuel flow on the pressure drop in the direct borohydride fuel cell, Postgraduate, G.MENTEŞE(Student), 2019  
Çelik C., Three-dimensional investigation of effect of working parameters on single PEM fuel cell performance by CFD method, Postgraduate, M.Kılıç(Student), 2018  
Çelik C., Determination of thermal conductivity coefficient in gas diffusion layers and development of the non-isothermal model of proton change membrane fuel cell, Postgraduate, A.Can(Student), 2018  
Çelik C., Çalışma parametrelerinin tek hücreli PEM yakıt pili performansına etkilerinin had metodu ile üç boyutlu incelenmesi, Postgraduate, M.KILIÇ(Student), 2017  
Çelik C., Investigation of thermal comfort requirements according to ISO standards: a case study in food industry, Postgraduate, F.Deniz(Student), 2017  
Çelik C., The experimental analysis of the effect of solar-air collector structure to performance, Postgraduate, B.Karabağ(Student), 2016  
Çelik C., Experimental investigation of usage of natural gas and methane mixtures in internal combustion engines, Postgraduate, B.Açıköz(Student), 2012  
Çelik C., Experimental investigation of drying of woodchips in a screw conveyor dryer, Postgraduate, Ö.Kaplan(Student), 2012

Çelik C., Ballistic investigation of small arms design, Postgraduate, Ö.Özyılmaz(Student), 2010  
ÇELİK C., Bir Dizel Motorunda Yanma Olayının Analizi, Postgraduate, S.Toksöz(Student), 2010

### Advising Graduates (Non-Thesis)

Çelik C., İnşaat Sektöründeki Ergonomik Risklerin Değerlendirilmesi, Masters (Non-Thesis,Evening Education), O.Sarı(Student), 2022  
Çelik C., OHSAS 18001, ISO 45001 REVIEW, RELATIONSHIP BETWEEN, DIFFERENCES AND TRANSITION PROCESSES, Masters (Non-Thesis,Evening Education), Ç.ÇÖL(Student), 2020  
Çelik C., Evaluation of One Cylinder Diesel Engine Performance by Using Three Different Suction Port, Masters (Non-Thesis,Evening Education), O.Çetinkaya(Student), 2018

### Scientific Refereeing

INTERNATIONAL JOURNAL OF CHEMICAL REACTOR ENGINEERING, SCI Journal, November 2016  
ENERGY CONVERSION AND MANAGEMENT, SCI Journal, August 2016  
RSC ADVANCES, SCI Journal, April 2016  
FUEL CELLS, SCI Journal, January 2016  
ELECTROCHIMICA ACTA, SCI Journal, January 2016  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, January 2016  
INTERNATIONAL JOURNAL OF VEHICLE DESIGN, SCI Journal, January 2015  
FUEL, SCI Journal, November 2014  
FUEL CELLS, SCI Journal, July 2014  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, June 2014  
INTERNATIONAL JOURNAL OF EXERGY, SCI Journal, January 2014  
ADVANCES IN MECHANICAL ENGINEERING, SCI Journal, July 2013  
ELECTROCHIMICA ACTA, SCI Journal, June 2013  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, March 2013  
FUEL, SCI Journal, January 2013  
FUEL CELLS, SCI Journal, September 2012  
JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, SCI Journal, September 2012  
INTERNATIONAL JOURNAL OF EXERGY, SCI Journal, June 2012  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, May 2012  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, September 2011  
FUEL CELLS, SCI Journal, June 2011  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, August 2010

### Scientific Consultations

Becerikli A.Ş., Project Consultancy, Kocaeli University, Mühendislik Fakültesi, Makina Mühendisliği, Turkey, 2020 - 2022

### Metrics

Publication: 95  
Citation (WoS): 661  
Citation (Scopus): 727  
H-Index (WoS): 13  
H-Index (Scopus): 14

## Congress and Symposium Activities

International conference on Energy and Advanced Materials-2021 (ICEAM-2021) , Invited Speaker, Uttarpara-Kotrung, India, 2021

2nd International Conference on Energy Materials and Fuel Cell Research, Working Group, Massachusetts, United States Of America, 2018

22nd World Hydrogen Energy Conference, Working Group, Rio-De-Janeiro, Brazil, 2018

158th International Conference on Recent Innovations in Engineering and Technology (ICRIET), IIER 2018, Working Group, Tokyo, Japan, 2018

Fuel Cells and Hydrogen Joint Undertaking Programme Info Day, Working Group, Brussels, Belgium, 2018

IV. International Multidisciplinary Congress of Eurasia, Working Group, Rome, Italy, 2017

Erasmus Staff Exchange Programme/Cracow University of Technology, Working Group, Krakow, Poland, 2017

20. Ulusal Isı Bilimi ve Tekniği Kongresi, Working Group, Balıkesir, Turkey, 2015

The 2015 International Conference of Mechanical Engineering, Working Group, London, United Kingdom, 2015

Fuel Cells and Hydrogen Joint Undertaking Programme Review Days 2015 and Stakeholder Forum, Working Group, Brussels, Belgium, 2015

Erasmus Staff Exchange Programme/Universitatea Din Oradea, Working Group, Oradea, Romania, 2014

Erasmus Staff Exchange Programme/Technische Universität Chemnitz, Working Group, Chemnitz, Germany, 2014

Erasmus Staff Exchange Programme/Institut Galilée-Université Paris13 LSPM CNRS, Working Group, Paris, France, 2013

Erasmus Staff Exchange Programme/Technische Universität Chemnitz, Working Group, Chemnitz, Germany, 2013

UCL Electrochemical Innovation Laboratory Launch and Networking Event, Working Group, London, United Kingdom, 2011

- PEM Fuel Cells Summer School, International Centre for Hydrogen Energy Technologies, July, 19-23, Working Group, İstanbul, Turkey, 2010

ULIBTK'09 17. Ulusal Isı Bilimi ve Tekniği Kongresi, Working Group, Sivas, Turkey, 2009

Yakıt Pili Entegrasyon Deneyimi/Uluslararası Hidrojen Enerjisi Teknolojileri Merkezi, Working Group, İstanbul, Turkey, 2009

Erasmus Staff Exchange Programme/University College Dublin, Working Group, Dublin, Ireland, 2009

1st Asian Conference on Innovative Energy & Environmental Chemical Engineering (ASCON-IEEChE), Working Group, Sapporo, Japan, 2008

ULIBTK'07 16. Ulusal Isı Bilimi ve Tekniği Kongresi, Working Group, Kayseri, Turkey, 2007

Buhar Tesisatları, Buhar Cihazları ve Enerji Tasarrufu, Working Group, İstanbul, Turkey, 2005

Manufacture of Fuel Cell Components/TÜBİTAK, Marmara Araştırma Merkezi, Enerji Enstitüsü, Working Group, İstanbul, Turkey, 2005

JRC-IE 2005 Enlargement & Integration Workshop, Fuel Cell Test/ Institute for Energy- Joint Research Centreing Aspects, Working Group, Amsterdam, Netherlands, 2005

VI. Ulusal Tesisat Mühendisliği Kongresi ve Sergisi, Teskon, Working Group, İzmir, Turkey, 2003

## Invited Talks

International conference on Energy and Advanced Materials-2021 (ICEAM-2021) , Conference, Jaypee Institute of Information Technology, India, October 2021

## Research Areas

Mechanical Engineering, Energy, Conventional Energy Systems and Their Technology, Renewable Energy Systems, Energy storage technologies, Hydrogen Technologies and Fuel Cells , Advanced Energy Technologies, Thermodynamics, Fuels and Combustion, Heating, Refrigerating and Air Conditioning, Thermal Systems, Thermal machines, Engineering and Technology

## Non Academic Experience

University College London, The Centre for CO<sub>2</sub> Technology, London, England

Hokkaido University, Center for Advanced Research of Energy Conversion Materials, Sapporo, Japan