

*Assistant Professor*

**DR. ŞAHİN AYDIN**

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## EDUCATION

**Kadir Has University**

İstanbul

*Ph.D. Management Information Systems*

2015 - 2020

Dissertation: *Open Data Platform for Agriculture: Multi Layers Perspective*

Thesis Supervisor: *Assoc. Prof. Dr. Mehmet N. Aydın*

**İstanbul University**

İstanbul

*M.Sc. Informatics*

2009 - 2012

Dissertation: *Implementation of Istanbul University Erasmus Information System by using Service Oriented Architecture*

Thesis Supervisor: *Prof. Dr. Sevinç Gülseçen*

**Marmara University**

İstanbul

*B.Sc., Computer Education and Instructional Technologies*

2005 - 2009

## PUBLICATIONS

### Published

**Aydın, S.** and Aydın, M.N., 2022. Design and implementation of a smart beehive and its monitoring system using microservices in the context of IoT and open data, *Computers and Electronics in Agriculture*, Volume 196, 106897, ISSN 0168-1699. **SCIE, Q1**

**Aydın, S.** and Aydın, M.N., 2020. Semantic and Syntactic Interoperability for Agricultural Open-Data Platforms in the Context of IoT Using Crop-Specific Trait Ontologies. *Appl. Sci.*, 10, 4460. **SCIE, Q2**

**Aydın, S.** and Aydın, M.N., 2020. Ontology-based data acquisition model development for agricultural open data platforms and implementation of OWL2MVC tool, *Computers and Electronics in Agriculture*, Volume 175, 105589, ISSN 0168-1699. **SCIE, Q1**

**Aydın, S.** and Aydın, M.N., 2020 "A Sustainable Multi-layered Open Data Processing Model for Agriculture: IoT Based Case Study Using Semantic Web for Hazelnut Fields", *Advances in Science, Technology and Engineering Systems Journal*, vol. 5, no. 2, pp. 309-319. **SCOPUS**

**Aydın, S.** 2018. Multi-layered Open Data Processing Model for Hazelnut Farms. *5th International Management Information Systems Conference*, October 24-26 2018, Ankara.

**Aydın, S.** , Unal, U., Aydın, M.N., 2018., "Open Data in Agriculture: Sustainable Model Development for Hazelnut farms using semantics," 2018 6th International Conference on Control Engineering Information Technology (CEIT), 2018, pp. 1-6, doi: 10.1109/CEIT.2018.8751875.

**Aydın, S.** and Cebi, B., 2022., "Comparison of Choreography vs Orchestration Based Saga Patterns in Microservices," 2022 International Conference on Electrical, Computer and Energy Technologies (ICECET) , pp. 1-6, doi: 10.1109/ICECET55527.2022.9872665

## GRANTS AND AWARDS

Kadir Has University, Scholarship . . . . .	2015-2020
Hüsnü M.Özyeğin Foundation, Scholarship . . . . .	2005-2009
Ministry of National Education, Scholarship . . . . .	2005-2009
Highest Degree, Marmara University . . . . .	2009
Second Highest Degree, Sezai Türkeş – Feyzi Akkaya Anatolian Technical High School . . . . .	2004

## RESEARCH AND WORK EXPERIENCE

<b>Işık University - INTALA LAB</b> <i>Founder and Principal Researcher</i> Intelligent Agriculture and Livestock Applications Laboratory (INTALA LAB) specializes on developing intelligent and innovative applications for agriculture and livestock services.	İstanbul, Türkiye 2020-Present
<b>Işık University</b> <i>Assistant Professor   Department of Information Technologies</i> To teach programming courses at undergraduate, graduate and doctoral levels.	İstanbul, Türkiye 2020-Present
<b>Boğaziçi University</b> <i>Assistant Professor   Department of Management Information Systems   Part Time</i> To teach programming courses at undergraduate level.	İstanbul, Türkiye 2021 Spring
<b>Okan University</b> <i>Lecturer   Department of Management Information Systems   Part Time</i> To teach programming courses at undergraduate and graduate levels.	İstanbul, Türkiye 2015 - 2020
<b>Istanbul Ayvansaray University</b> <i>Lecturer   Department of Computer Engineering</i> To teach programming courses at undergraduate level.	İstanbul, Türkiye 2019 - 2020
<b>Istanbul Ayvansaray University</b> <i>Lecturer   Computer Programming</i> To teach programming courses at undergraduate level.	İstanbul, Türkiye 2011 - 2020
<b>Bilge Adam Academy</b> <i>Software and Database Trainer</i> To teach desktop, mobile, and web development technologies.	İstanbul, Türkiye 2011 - 2013

TEACHING COURSES

<b>Course Name</b>	<b>Level</b>
Semantic Web	Graduate
Service Oriented Architecture and its Applications	Graduate
Implementing Web Applications for Business	Graduate
Introduction to Algorithms and Programming	Graduate
Data-Driven Applications Development	Undergraduate
Advanced Web Applications Development	Undergraduate
Business Application Development	Undergraduate
Software Testing and Quality Assurance	Undergraduate
Advanced Database Systems	Undergraduate
Advanced Java for Information Management	Undergraduate
Java for Information Management	Undergraduate
Agile Software Development	Undergraduate
Introduction to Algorithms	Undergraduate
Advanced Web Programming	Undergraduate
Object-oriented Programming	Undergraduate
Python Programming	Undergraduate
Database Systems	Undergraduate
Distributed Software Applications	Undergraduate
Visual Programming	Undergraduate
Mobil Programming	Undergraduate
System Analysis and Design	Undergraduate
Design Patterns	Undergraduate
Data Structures and Algorithms	Undergraduate
Database Programming	Undergraduate

Database Management Systems

Undergraduate

### ACADEMIC AREA OF INTERESTS

- Open Data
- Internet of Things (IoT)
- Ontology-based Information Systems
- Agricultural Information Systems
- Precision Agriculture
- Smart Agriculture and Livestock Applications
- Semantic Web
- Ontology Engineering
- Data and Technology Management
- Databases
- Microservices and Service Oriented Architecture (SOA)
- Practical Applications of Artificial Intelligence
- Machine Learning, Deep Learning
- Big Data Analytics
- Software Engineering
- Wireless Sensor Networks (WSN) Applications in Agriculture and Livestock

### ACADEMIC ACTIVITIES

**Journal Reviewer** 2020-present  
-SCOPUS-Indexed, *Advances in Science, Technology and Engineering Systems Journal (ASTESJ)*

**Journal Reviewer** 2022-present  
-SCIE, *Complexity*

## TECHNICAL

### **Programming**

C#, Java, Python, C++, Pascal, Visual Basic, Objective-C

### **Statistical software**

R

### **Database Management**

MS SQL Server, MySQL Server, Neo4j, MS Access, MS Excel

### **Web Development Technologies**

ASP .NET MVC, ASP .NET Web Forms, JSON, XML / XML Web Services, HTML, JavaScript, jQuery

### **Mobile Development Technologies**

iPhone/iPad Applications Development, Xamarin Cross Platform Apps Development

### **Other Development Technologies**

Workflow Foundation, Windows Presentation Foundation, Windows Communication Foundation, LINQ, ADO.NET, ADO.NET Entity Framework

### **IoT Development Technologies**

Arduino and Raspberry Pi Applications Development

## CERTIFICATES

### **MCP**

Microsoft Certified Professional

### **MCT**

Microsoft Certified Trainer

### **MCPD**

Microsoft Certified Professional Developer Web Developer

### **MCPD**

Microsoft Certified Professional Developer Windows Developer

### **MCPD**

Microsoft Certified Professional Developer Windows Phone Developer

### **MCPD**

Microsoft Certified Professional Developer Silverlight Developer

### **MCTS**

Microsoft Certified Technology Specialist .NET Framework 4.0 Data Access

**MCTS**

Microsoft Certified Technology Specialist .NET Framework 4.0 Web Applications

**MCTS**

Microsoft Certified Technology Specialist .NET Framework 4.0 Windows Applications

**MCTS**

Microsoft Certified Technology Specialist Silverlight 4.0 Development

**MCTS**

Microsoft Certified Technology Specialist .NET Framework 4.0 Service Communication Application