Barış Gürcan HAKANOĞLU, Ph.D.

Assistant Professor

Atılım University

Department of Electrical and Electronics Engineering

06830 İncek, Gölbaşı, Ankara/TURKEY

baris.hakanoglu@atilim.edu.tr

Tel: +90 312 586 83 20

# EDUCATION

|  |  |
| --- | --- |
| 2015-2021 | Erciyes University, Electrical and Electronics Engineering, PhD |
| 2001-2005 | Mersin University, Electrical and Electronics Engineering, MSc |
| 1996-2001 | Kocaeli University, Electronics and Communication Engineering, BSc |

# ACADEMIC POSITIONS

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| --- | --- |
| 08/2024- present | Assist. Prof. Dr., Department of Electrical and Electronics Engineering, Atilim University, Turkey |
| 02/2023-07/2024 | Assist. Prof. Dr., Department of Electrical and Electronics Engineering, Bandırma Onyedi Eylül University, Turkey |
| 07/2022-02/2023 | Assist. Prof. Dr., Program of Electronics Technology, Ostim Technical University, Turkey |
| 11/2008-07/2022 | Instructor, Program of Electronics and Communication Technology, Kırşehir Ahi Evran University, Turkey |
| 09/2006-02/2007 | Instructor, Department of Electronics Education, Mersin University, Turkey |
| 11/2001-03/2005 | Research Assistant, Department of Electrical and Electronics Engineering, Mersin University, Turkey |

**RESEARCH INTERESTS**

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| --- | --- |
| 1 | Microstrip Patch Antenna Design |
| **2** | THz and mm-wave antennas |
| **3** | RF and Microwave Theory |
| **4** | Wearable Antennas |
| **5** | Electromagnetics |

**PUBLICATIONS (SCI, SCI-E)**

|  |  |
| --- | --- |
| 3 | Hakanoglu, B. G., Kilic, V. T., Altindis, F., Turkmen, M. (2023). Crown Shaped Edge Multiband Antenna Design for 5G and X-Band Applications. *Wireless Networks*, vol. 29, pp. 3255-3270. |
| **2** | Turkmen, M., Gunes, Y.E., Hakanoglu, B.G. et al. (2022). Dual-Band Patch Antenna with Simple Rectangular Shaped Slots for Local Area Networks. *Wireless Personal Communication*, vol. 123, no 2, pp. 1047-1058. |
| **1** | Hakanoğlu, B. G., Koc, B., Sen, O., Yalduz, H., Turkmen, M. (2021). Stub Loaded Patch Antenna and a Novel Method for Miniaturization at Sub 6 GHz 5G and Wi-Fi Frequencies. *Advances in Electrical and Computer Engineering (AECE)*, vol. 21, no. 2, pp. 23-32. |

**PUBLICATIONS (TR INDEX)**

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| 5 | Hakanoğlu, B. G. (2024). 6g Ağlarında Dikdörtgen Yarıklı Kare Yama Antenin Farklı Dielektrik Malzemeler İçin Işıma Karakteristıkleri Analızi. *Mühendislik Bilimleri ve Araştırmaları Dergisi,* vol. 6, no. 1, pp. 105-112. |
| **4** | Hakanoğlu, B. G. (2024). The Effect of Different Dielectric Materials on Radiation Features of Slotted Patch Antennas for 6G Communication Systems. *Uludağ Üniversitesi Mühendislik Fakültesi Dergisi,* vol. 29, no. 1, pp. 263-278. |
| **3** | Sarıkaya, K., Hakanoğlu, B. G., Keser, S. (2023). X ve Ku Bandı İçin Dikdörtgen Ve Simetrik L-Şekilli Yarıklara Sahip Çoklu Bant Yama Antenlerde Malzeme Etkileri. *Düzce Üniversitesi Bilim ve Teknoloji Dergisi,* vol. 11, no. 2, pp. 1094-1104. |
| **2** | Hakanoğlu, B. G., Hayber, S. E., Türkmen, M. (2021). Design Equation for Operating Frequency of Patch Antenna with a Rectangular Tuning Stub at Early Phase 5G Bands. *Academic Platform-Journal of Engineering and Science,* vol. 9, no. 3, pp. 403-410. |
| **1** | Hakanoğlu, B. G., Yalduz, H., Koc, B., Hayber, S. E., Türkmen, M. (2020). Comparative Analysis of the Effects of the Substrate Material and Deltoid Shaped Slots on Patch Antennas for 5G Networks at 37 GHz and 39 GHz. *Avrupa Bilim ve Teknoloji Dergisi*, Ejosat Special Issue 2020 (ARACONF), pp. 405-411. |

**PROJECTS**

|  |  |
| --- | --- |
| 1 | Investigation of New Patch Antenna Designs with Different Dielectric Materials for Smart Grid Network Data Communication, Bandırma Onyedi Eylül University Scientific Research Project, Project No: BAP-23-1004-009, Researcher, (Start date: 25.12.2023-ongoing). |

# CONFERENCE PRESENTATIONS

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| --- | --- |
| 13 | Baris G. Hakanoglu, Mustafa Turkmen, “Investigation of the Effects of the Slot Parameters on a Patch Antenna at 28 GHz Related to the Operating Wavelength “, *The 15th Global Symposium on Milimeter-Waves&Terahertz (GSMM2024)*, 20–22 May 2024, Hong Kong, China. |
| 12 | Barış Gürcan Hakanoğlu, “Comparative Analysis Of Rectangular Slots And Different Substrate Materials For A Square Patch Antenna For 6G Communicatıon Systems*”, VII. International Conference on Engineering Sciences,* 9-10 Februray 2024, Ankara, Türkiye. |
| 11 | Barış Gürcan Hakanoğlu, “Comparative Analysis of the Effects of Rectangular Slots and Defected Ground for Different Materials on Patch Antennas at 6G Frequency Bands”, *VII. International Marmara Scientific Research and Innovation Congress*, 27-28 January 2024, Istanbul, Türkiye. |

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| 10 | Barış Gürcan Hakanoğlu, “6G Haberleşme Sistemleri İçin Yarıklı Yama Antenlerde Farklı DielektrikMalzemelerin Yayılma Karakteristiklerine Etkisi”, *Elektrik-Elektronik ve Biyomedikal Mühendisliği Konferansı (ELECO) 2022*,24-26 Kasım 2022, Bursa, Türkiye. |
| 9 | Kübra Sarıkaya, Barış Gürcan Hakanoğlu, “X ve Ku Bantlarında Çalışan Yama Antende Asimetrik Dikdörtgen Yarıkların Etkisi”, *I. Savunma Sanayi Sempozyumu ve Sergisi*, 13-15 Ekim 2022, Kayseri, Türkiye. |
| 8 | Mehmet Güçyetmez, Barış Gürcan Hakanoğlu, “A New Antenna Model for Smart Grid Data Communication at 868 MHz ZigBee Band”, *XIV. International Conference on Engineering&Natural Sciences*, 18-19 July 2022, Sivas, Türkiye. |
| 7 | Baris G. Hakanoglu, Osman Sen, Burak Koc, Sekip Esat Hayber, Mustafa Turkmen, “Defected Grounded Rectangular Patch Antenna with Rhombic-Shaped Slots for Early Phase 5G Applications “, *XXXIII. International Union of Radio Science (URSI) General Asembly&Scientific Symposium (GASS)*, 29 August–5 September 2020, Rome, Italy. |
| 6 | Baris G. Hakanoglu, Sekip Esat Hayber, Omer Galip Saracoglu, Mustafa Turkmen, “Optimization of Feed Line Parameters of a Square Microstrip Patch Antenna at 39 GHz for 5G Designs”, *International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT)*, 19 – 21 October 2018, Ankara, Turkey. |
| 5 | Baris G. Hakanoglu, Mustafa Turkmen, “The Effect of Diamond – Shaped Slots in Square Microstrip Patch Antenna At 39 GHz”, *International Symposium on Graduate Research in Science Focus on Innovation and Entrepreneurship*, 4 – 6 October 2018, Istanbul, Turkey. |
| 4 | Baris G. Hakanoglu, Mustafa Turkmen, “The Effect of the Slot Edge Dimension on the Operating Frequency of a Square Microstrip Patch Antenna for 5G Communication Networks”, *IX. URSI – Türkiye Bilimsel Kongresi Ulusal Genel Kurul Toplantısı*, 6 – 8 Eylül 2018, Konya, Türkiye. |
| 3 | Baris G. Hakanoglu, Mustafa Turkmen, “Comperative Investigation of the Slot Edge Dimensions for a Square Microstrip Patch Antenna at 28 GHz and 39 GHz for 5G Applications”, *II. Bilimsel ve Mesleki Ҫalışmalar Sempozyumu,* 5 – 8 Temmuz 2018, Nevşehir, Türkiye. |

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| 2 | Baris G. Hakanoglu, Osman Sen, Mustafa Turkmen, “A Square Microstrip Patch Antenna With Enhanced Return Loss Through Defected Ground Plane For 5G Wireless Networks “, *II. International Union of Radio Science (URSI) Atlantic Radio Science Meeting (AT- RASC),* 28 Mayıs–01 Haziran 2018, Meloneras, Gran Canaria, İspanya.  |
| 1 | Baris G. Hakanoglu, Mustafa Turkmen, “ An Inset Fed Square Microstrip Patch Antenna To Improve the Return Loss Characteristics for 5G Applications “, *XXXII. International Union of Radio Science (URSI) General Asembly & Scientific Symposium (GASS)*, 19 – 26 Ağustos 2017, Montreal, Quebec, Kanada. |

**CITATIONS**

|  |  |
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| Sum of times cited without self-citations (ISI Web of Science):  | 3 |
| H-index (ISI Web of Science):  | 1 |

**COURSES GIVEN**

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| --- | --- |
| 1 | Elektromagnetic Field Theory(BSc-Bandırma Onyedi Eylül Unv.) (Spring 2023-2024) |
| **2** | Microwave Theory(BSc-Bandırma Onyedi Eylül Unv.) (Spring 2023-2024) |
| **3** | Design and Fabrication of Microstrip Patch Antennas (MSc- Bandırma Onyedi Eylül Unv.) (Spring 2023-2024) |
| **4** | Antenna Engineering (MSc- Bandırma Onyedi Eylül Unv.) (Fall 2023-2024) |
| **5** | Antennas (BSc- Bandırma Onyedi Eylül Unv.) (Fall 2023-2024) |
| **6** | Elektromagnetic Wave Theory(BSc-Bandırma Onyedi Eylül Unv.) (Fall 2023-2024) |
| **7** | Electric Circuits I (BSc-Ostim Teknik Üniversitesi) (Fall 2022-2023) |