

# Prof. CENGİZ BEŞİKÇİ

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, Northwestern University, Elektrik Muh., United States Of America 1990 - 1994

Postgraduate, Illinois Institute of Technology, Elektrik Müh., United States Of America 1989 - 1990

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 1982 - 1987

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Advanced Modeling Concepts and Material Considerations for III-V Heterostructure Electron Devices on GaAs Substrates, Northwestern University, Elektrik Muh., 1994

Postgraduate, The transient behavior of excess carriers in single valley semiconductors under different levels of injection, Illinois Institute Of Technology, Elektrik Müh., 1990

## Research Areas

Engineering and Technology

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2004 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 1999 - 2004

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 1994 - 1998

## Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 1996 - 1997

## Courses

SEMICONDUCTOR DEVICES& MODELING, Undergraduate, 2018 - 2019

Solid State Devices, Undergraduate, 2018 - 2019

INFRARED DEVICES AND SYSTEMS, Postgraduate, 2018 - 2019

## Advising Theses

Beşikci C., Characterization of MWIR quantum well infrared photodetector imaging sensor arrays on InP substrates, Postgraduate, O.TANIŞ(Student), 2023

Beşikci C., InP/InAs quantum well infrared photodetectors, Postgraduate, O.ONUR(Student), 2023

Beşikci C., Simulation and modelling of superlattice infrared photon sensors, Postgraduate, M.CAN(Student), 2023

Beşikci C., MWIR InP/InGaAs quantum well infrared photodetectors, Postgraduate, S.VEYSEL(Student), 2023

Beşikci C., Development of High Performance Long Wavelength Infrared HgCdTe Focal Plane Arrays, Postgraduate, B.BARUTCU(Student), 2019

BEŞİKCİ C., High performance short wavelength infrared focal plane arrays, Postgraduate, K.ÇIRÇIR(Student), 2017

BEŞİKCİ C., Molecular beam epitaxial growth and characterization of extended short wavelength infrared mercury cadmium telluride detectors, Postgraduate, E.ŞAŞMAZ(Student), 2017

BEŞİKCİ C., IDENTIFICATION AND CHARACTERIZATION OF TRAPS IN InGaAs SHORT WAVELENGTH INFRARED PHOTODETECTORS BY DEEP LEVEL TRANSIENT SPECTROSCOPY, Postgraduate, N.AVISHAN(Student), 2016

BEŞİKCİ C., High performance focal plane array technologies from short to long wavelength infrared bands, Doctorate, Y.ARSLAN(Student), 2014

BEŞİKCİ C., PARLAK M., Molecular beam epitaxy growth of InP/InGaAs structures for short wavelength infrared photodetectors, Postgraduate, O.TEMEL(Student), 2014

BEŞİKCİ C., TURAN R., Bulk growth and characterization of cadmium zinc telluride crystals for mercury cadmium telluride infrared detector applications, Postgraduate, H.YASİN(Student), 2012

BEŞİKCİ C., PARLAK M., Fabrication and characterization of InP based quantum well infrared photodetectors, Postgraduate, G.TORUNOĞLU(Student), 2012

BEŞİKCİ C., PARLAK M., Molecular beam epitaxy growth and characterization of mercury cadmium telluride epilayers for infrared detector applications, Postgraduate, A.TOLUNGÜÇ(Student), 2011

BEŞİKCİ C., Numerical modeling and optimization of HgCdTe infrared photodetectors for thermal imaging, Doctorate, H.KOÇER(Student), 2011

BEŞİKCİ C., Single and dual band quantum well infrared photodetector focal plane arrays on InP substrates, Doctorate, S.UMUT(Student), 2010

BEŞİKCİ C., Large format dual-band quantum well infrared photodetector focal plane arrays, Postgraduate, Y.ARSLAN(Student), 2009

BEŞİKCİ C., Dual and single color mid-wavelength infrared quantum well photodetectors, Postgraduate, M.KALDIRIM(Student), 2008

BEŞİKCİ C., Ensemble Monte Carlo simulation of quantum well infrared photodetectors, and InP based long wavelength quantum well infrared photodetectors for thermal imaging, Doctorate, O.ORKUN(Student), 2006

BEŞİKCİ C., Long wavelength infrared mercury cadmium telluride photodiodes and focal plane arrays, Postgraduate, B.AŞICI(Student), 2005

BEŞİKCİ C., InSb and InAsSb infrared photodiodes on alternative substrates and InP/InGaAs quantum well infrared photodetectors: Pixel and focal plane array performance, Doctorate, S.ÖZER(Student), 2005

BEŞİKCİ C., Long wavelength mercury cadmium telluride photodiodes and focal plane arrays, Postgraduate, B.AŞICI(Student), 2005

BEŞİKCİ C., Dark current mechanisms and passivation of InAsSb infrared photodiodes on alternative substrates,

Postgraduate, Ö.ERSAGUN(Student), 2005  
BEŞİKCİ C., A digital signal processor based development platform for thermal imagers, Postgraduate, M.ÖZKAN(Student), 2003  
BEŞİKCİ C., TUNCER T. E., A Digital signal processor based development platform for thermal imagers, Postgraduate, M.Özkan(Student), 2003  
BEŞİKCİ C., Design of a video processing and system control board for a compact thermal imager., Postgraduate, S.DİNMEZ(Student), 2002  
BEŞİKCİ C., Design of a front-end electronics and user interface board for a compact thermal imager., Postgraduate, F.İŞİK(Student), 2002  
BEŞİKCİ C., A Detailed investigation of bound to quasibound quantum well infrared photodetectors: An advanced Monte Carlo study, Postgraduate, E.ÖNCÜ(Student), 2001  
BEŞİKCİ C., Design and implementation of front-end electronics for an infrared imaging system, Postgraduate, A.Yeler(Student), 2001  
BEŞİKCİ C., Design and implementation of front-end electronics for an infrared imaging system, Postgraduate, A.YELER(Student), 2001  
BEŞİKCİ C., Performance assesment of pseudomorphicMODFETs through Monte Carlo simulations, Postgraduate, S.ÖZER(Student), 2000  
BEŞİKCİ C., Performance assessment of pseudomorphic modfets through monte carlo simulations, Postgraduate, S.Özer(Student), 2000  
BEŞİKCİ C., Fabrication and characterization of GaInP/InGaAs/GaAs modulation doped field effect transistors, Postgraduate, T.YALÇIN(Student), 2000  
BEŞİKCİ C., Fabrication and characterization of Ga<sub>0.51</sub>In<sub>0.49</sub>P/In<sub>x</sub>Ga<sub>1-x</sub>As/GaAs modulation doped field effect transistors, Postgraduate, T.Yalçın(Student), 2000  
BEŞİKCİ C., Advanced monte carlo modeling of III-V field-effect transistors, Postgraduate, A.TURABİ(Student), 1999  
BEŞİKCİ C., Indium antimonide infrared p-i-n photodetectors grown on gallium arsenide coated silicon substrates by molecular beam epitaxy, Postgraduate, A.Tevke(Student), 1999  
BEŞİKCİ C., Indium antimonide p-in photodetectors grown on gallium arsenide coated silicon substroties by molecular beam epitaxy, Postgraduate, A.TEVKE(Student), 1999  
BEŞİKCİ C., Electrical characterization of GaInP/InGaAs/GaAs modulation doped field-effect transistor structures, Postgraduate, Y.CİVAN(Student), 1998

## Designed Lessons

Beşikci C., Solid State Devices, Undergraduate, 2011 - 2012  
Beşikci C., Infrared Devices and Systems, Postgraduate, 2007 - 2008  
Beşikci C., Semiconductor Devices and Modeling, Undergraduate, 1996 - 1997  
Beşikci C., Transport Phenomena in Semiconductor Devices, Postgraduate, 1995 - 1996  
Beşikci C., High Speed Semiconductor Devices and Circuits, Postgraduate, 1995 - 1996

## Research Infrastructure Information

Beşikci C., Kuantum Aygıtları ve Nanofotonik Araştırma Laboratuvarı, December 2005

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

- Grating-free high-x InP/In<sub>x</sub>Ga<sub>1-x</sub>As mid-wavelength infrared QWIP focal plane array**  
Beşikci C., Balcı S. V., Tanış O., Güngör O. O., Arpaguş E.  
OPTO-ELECTRONICS REVIEW, vol.31, no.special issue, pp.1-4, 2023 (SCI-Expanded)

- II. **Diffraction-Grating-Free Very Small-Pitch High-x InP/In<sub>x</sub>Ga<sub>1-x</sub>As Quantum Well Infrared Photodetectors**  
Besikciand C., Balci S.  
IEEE Electron Device Letters, vol.43, no.8, pp.1287-1290, 2022 (SCI-Expanded)
- III. **Nature Allows High Sensitivity Thermal Imaging With Type-I Quantum Wells Without Optical Couplers: A Grating-Free Quantum Well Infrared Photodetector With High Conversion Efficiency**  
BEŞİKCİ C.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.57, no.2, 2021 (SCI-Expanded)
- IV. **High-x InP/In<sub>x</sub>Ga<sub>1-x</sub>As quantum well infrared photodetector**  
BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.95, pp.152-157, 2018 (SCI-Expanded)
- V. **Theoretical assessment of electro-thermal imaging: A new technique for medical diagnosis**  
Carlak H. F., GENÇER N. G., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.76, pp.227-234, 2016 (SCI-Expanded)
- VI. **Extended wavelength SWIR In GaAs focal plane array: Characteristics and limitations**  
Arslan Y., Oguz F., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.70, pp.134-137, 2015 (SCI-Expanded)
- VII. **640 x 512 Extended Short Wavelength Infrared In<sub>0.83</sub>Ga<sub>0.17</sub>As Focal Plane Array**  
Arslan Y., Oguz F., BEŞİKCİ C.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.50, no.12, pp.957-964, 2014 (SCI-Expanded)
- VIII. **Enhanced performance QWIP FPAs**  
Arslan Y., Colakoglu T., Torunoglu G., Aktas O., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.59, pp.108-111, 2013 (SCI-Expanded)
- IX. **Diffraction-Grating-Coupled High Quantum Efficiency InP/InGaAs Quantum Well Infrared Photodetector Focal Plane Array**  
Arslan Y., Colakoglu T., BEŞİKCİ C.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.49, no.2, pp.186-195, 2013 (SCI-Expanded)
- X. **Numerical analysis of long wavelength infrared HgCdTe photodiodes**  
Kocer H., Arslan Y., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.55, no.1, pp.49-55, 2012 (SCI-Expanded)
- XI. **PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON QUANTUM STRUCTURE INFRARED PHOTODETECTOR (QSIP) 2010 Preface**  
BEŞİKCİ C., Gunapala S. D., Razeghi M.  
INFRARED PHYSICS & TECHNOLOGY, vol.54, no.3, pp.131, 2011 (SCI-Expanded)
- XII. **High speed QWIP FPAs on InP substrates**  
Eker S. U., Arslan Y., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.54, no.3, pp.209-214, 2011 (SCI-Expanded)
- XIII. **High Conversion Efficiency InP/InGaAs Strained Quantum Well Infrared Photodetector Focal Plane Array With 9.7  $\mu$  m Cut-Off for High-Speed Thermal Imaging**  
Eker S. U., Arslan Y., Onuk A. E., BEŞİKCİ C.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.46, no.2, pp.164-168, 2010 (SCI-Expanded)
- XIV. **Large format voltage tunable dual-band QWIP FPAs**  
Arslan Y., Eker S. U., Kaldirim M., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.52, no.6, pp.399-402, 2009 (SCI-Expanded)
- XV. **QWIP focal plane arrays on InP substrates for single and dual band thermal imagers**  
Eker S. U., Arslan Y., Kaldirim M., BEŞİKCİ C.  
INFRARED PHYSICS & TECHNOLOGY, vol.52, no.6, pp.385-390, 2009 (SCI-Expanded)
- XVI. **Large-format voltage-tunable dual-band quantum-well infrared photodetector focal plane array for third-generation thermal imagers**  
Eker S. U., Kaldirim M., Arslan Y., BEŞİKCİ C.  
IEEE ELECTRON DEVICE LETTERS, vol.29, no.10, pp.1121-1123, 2008 (SCI-Expanded)

- XVII. **Lattice-matched AlInAs-InGaAs mid-wavelength infrared QWIPs: characteristics and focal plane array performance**  
Kaldirim M., Arslan Y., Eker S. U., BEŞİKCİ C.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.23, no.8, 2008 (SCI-Expanded)
- XVIII. **Large-format voltage-tunable dual-color midwavelength infrared quantum-well infrared photodetector focal plane array**  
Kaldirim M., Eker S. U., Arslan Y., TÜMKAYA U., BEŞİKCİ C.  
IEEE PHOTONICS TECHNOLOGY LETTERS, vol.20, pp.709-711, 2008 (SCI-Expanded)
- XIX. **Large format AlInAs-InGaAs quantum-well infrared photodetector focal plane array for midwavelength infrared thermal imaging**  
Ozer S., Tumkaya U., Besikci C.  
IEEE PHOTONICS TECHNOLOGY LETTERS, vol.19, pp.1371-1373, 2007 (SCI-Expanded)
- XX. **Demonstration and performance assessment of large format InP-InGaAsP quantum-well infrared photodetector focal plane array**  
Ozer S., Tumkaya U., Asici B., Besikci C.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.43, pp.709-713, 2007 (SCI-Expanded)
- XXI. **A detailed ensemble Monte Carlo study of the effect of quantum well width on quantum well infrared photodetector characteristics**  
Memiş S., Cellek O., Bostanci U., TOMAK M., BEŞİKCİ C.  
Turkish Journal of Physics, vol.30, no.4, pp.335-344, 2006 (SCI-Expanded)
- XXII. **Assessment of large format InP/InGaAs quantum well infrared photodetector focal plane array**  
Ozer S., Cellek O., Besikci C.  
INFRARED PHYSICS & TECHNOLOGY, vol.47, pp.115-118, 2005 (SCI-Expanded)
- XXIII. **High responsivity InP-InGaAs quantum-well infrared photodetectors: Characteristics and focal plane array performance**  
Cellek O., Ozer S., Besikci C.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.41, no.7, pp.980-985, 2005 (SCI-Expanded)
- XXIV. **Gain and transient photoresponse of quantum well infrared photodetectors: A detailed ensemble Monte Carlo study**  
Cellek O., Memiş S., Bostanci U., Ozer S., BEŞİKCİ C.  
Physica E: Low-Dimensional Systems and Nanostructures, vol.24, pp.318-327, 2004 (SCI-Expanded)
- XXV. **Detailed investigation of electron transport, capture and, gain in Al<sub>0.3</sub>Ga<sub>0.7</sub>As/GaAs quantum well infrared photodetectors**  
Cellek O., Besikci C.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.19, no.2, pp.183-190, 2004 (SCI-Expanded)
- XXVI. **Assessment of InSb photodetectors on Si substrates**  
Ozer S., Besikci C.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.36, no.5, pp.559-563, 2003 (SCI-Expanded)
- XXVII. **Characteristics of InAs(0.8)Sb(0.2) photodetectors on GaAs substrates**  
Besikci C., Ozer S., Van Hoof C., Zimmermann L., John J., Merken P.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.16, no.12, pp.992-996, 2001 (SCI-Expanded)
- XXVIII. **Dielectric screening effects on electron transport in Ga<sub>0.51</sub>In<sub>0.49</sub>P/In<sub>x</sub>Ga<sub>1-x</sub>As/GaAs quantum wells**  
Besikci C., Bakir A., Tanatar B.  
JOURNAL OF APPLIED PHYSICS, vol.88, no.3, pp.1504-1510, 2000 (SCI-Expanded)
- XXIX. **Beşikci C., Civan Y.**  
TURKISH JOURNAL OF PHYSICS, vol.23, pp.619-629, 1999 (SCI-Expanded)
- XXX. **Characteristics of electron traps in Si-doped Ga<sub>0.51</sub>In<sub>0.49</sub>P and electrical properties of modulation doped GaInP/InGaAs/GaAs heterostructures**  
Besikci C., Civan Y.  
THIN SOLID FILMS, vol.338, pp.213-219, 1999 (SCI-Expanded)
- XXXI. **Hydrodynamic approach for modelling transport in quantum well device structures**

- Besikci C., Tanatar B., Sen O.  
 JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.31, no.17, pp.2211-2218, 1998 (SCI-Expanded)
- XXXII. **InSb infrared p-i-n photodetectors grown on GaAs coated Si substrates by molecular beam epitaxy**  
 Tevke A., Besikci C., Van Hoof C., Borghs G.  
 SOLID-STATE ELECTRONICS, vol.42, no.6, pp.1039-1044, 1998 (SCI-Expanded)
- XXXIII. **Effects of screening on the two-dimensional electron transport properties in modulation doped heterostructures**  
 Sen O., Besikci C., Tanatar B.  
 SOLID-STATE ELECTRONICS, vol.42, no.6, pp.987-991, 1998 (SCI-Expanded)
- XXXIV. **Gas source molecular beam epitaxy growth and characterization of Ga<sub>0.51</sub>In<sub>0.49</sub>P/In<sub>x</sub>Ga<sub>1-x</sub>As/GaAs modulation-doped field-effect transistor structures**  
 Besikci C., Civan Y., Ozder S., Sen O., Jelen C., Slivken S., Razeghi M.  
 SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.12, no.11, pp.1472-1478, 1997 (SCI-Expanded)
- XXXV. **MOLECULAR-BEAM EPITAXIAL-GROWTH OF HIGH-QUALITY INSB**  
 Michel E., Singh G., Slivken S., Besikci C., Bove P., Ferguson I., Razeghi M.  
 APPLIED PHYSICS LETTERS, vol.65, pp.3338-3340, 1994 (SCI-Expanded)
- XXXVI. **DETAILED ANALYSIS OF CARRIER TRANSPORT IN INAS<sub>0.3</sub>SB<sub>0.7</sub> LAYERS GROWN ON GAAS SUBSTRATES BY METALORGANIC CHEMICAL-VAPOR-DEPOSITION**  
 Besikci C., Choi Y., Labeyrie G., Bigan E., Razeghi M., Cohen J., Carsello J., Dravid V.  
 JOURNAL OF APPLIED PHYSICS, vol.76, pp.5820-5828, 1994 (SCI-Expanded)
- XXXVII. **On the Description of the Collision Terms in Three-Valley Hydrodynamic Models for GaAs Device Modeling**  
 Besikci C., Razeghi M.  
 IEEE Transactions on Electron Devices, vol.41, pp.1471-1475, 1994 (SCI-Expanded)
- XXXVIII. **Electron Transport Properties of Ga<sub>0.51</sub>In<sub>0.49</sub>P for Device Applications**  
 Besikci C., Razeghi M.  
 IEEE Transactions on Electron Devices, vol.41, no.6, pp.1066-1069, 1994 (SCI-Expanded)
- XXXIX. **GROWTH OF IN<sub>1</sub>-XTLXSB A NEW INFRARED MATERIAL, BY LOW-PRESSURE METALORGANIC CHEMICAL-VAPOR-DEPOSITION**  
 CHOI Y., BESIKCI C., SUDHARSANAN R., RAZEGHI M.  
 APPLIED PHYSICS LETTERS, vol.63, no.3, pp.361-363, 1993 (SCI-Expanded)
- XL. **ANOMALOUS HALL-EFFECT IN INSB LAYERS GROWN BY METALORGANIC CHEMICAL-VAPOR DEPOSITION ON GAAS SUBSTRATES**  
 BESIKCI C., CHOI Y., SUDHARSANAN R., RAZEGHI M.  
 JOURNAL OF APPLIED PHYSICS, vol.73, no.10, pp.5009-5013, 1993 (SCI-Expanded)

## Books & Book Chapters

- I. **Proceedings of the International Conference on Quantum Structure Infrared Photodetectors (QSIP) 2010**  
 Beşikci C. (Editor), Gunapala S. D. (Editor), Razeghi M. (Editor)  
 Elsevier Science, Oxford/Amsterdam , Amsterdam, 2011

## Refereed Congress / Symposium Publications in Proceedings

- I. **Grating-Free High $x$  InP/In<sub>x</sub>Ga<sub>1-x</sub>As MWIR QWIP Focal Plane Arrays**  
 Beşikci C.  
 Quantum Structure Infrared Photodetectors (QSIP) International Conference, Krakow, Poland, 10 - 15 July 2022, pp.52

- II. **Infrared Imaging with Quantum Wells: Status and Trends**  
Beşikci C.  
25. İstatiksel Fizik Günleri, İzmir, Turkey, 28 - 30 June 2018
- III. **Quantum Well Infrared Photodetector Technology: Status and Outlook**  
Beşikci C.  
Quantum Structure Infrared Photodetectors Conference, Stockholm, Sweden, 17 - 21 June 2018
- IV. **Extended Short Wavelength Infrared FPA Technology: Status and Trends**  
BEŞİKCİ C.  
Conference on Quantum Sensing and Nano Electronics and Photonics XV, San-Francisco, Costa Rica, 28 January - 02 February 2018, vol.10540
- V. **Performance Enhancements in High Quantum Efficiency InP Based QWIPs**  
Arslan Y., Çolakoğlu T., KOCAMAN S., BEŞİKCİ C.  
Quantum Structure Infrared Photodetector International Conference QSIP 2014, 29 June - 03 July 2014
- VI. **Medical Thermal Imaging of Electrically Stimulated Woman Breast: a simulation study**  
Carlak H. F., Gençer N. G., Beşikci C.  
33rd Annual International Conference of the IEEE Engineering-in-Medicine-and-Biology-Society (EMBS), Massachusetts, United States Of America, 30 August - 03 September 2011, pp.4905-4908
- VII. **Thermal images of electrically stimulated breast: A simulation study**  
Carlak H. F., GENÇER N. G., BEŞİKCİ C.  
12th Mediterranean Conference on Medical and Biological Engineering and Computing, MEDICON 2010, Chalkidiki, Greece, 27 - 30 May 2010, vol.29, pp.244-247
- VIII. **Simulations of electrically stimulated thermal imaging using a 3D breast model Akim uygulamalı termal görüntüleme yöntemi için üç boyutlu meme modeli ile benzetimler**  
Carlak H. F., GENÇER N. G., BEŞİKCİ C.  
2010 15th National Biomedical Engineering Meeting, BIYOMUT2010, Antalya, Turkey, 21 - 24 April 2010
- IX. **Large Format Dual Band QWIP Focal Plane Arrays for Third Generation Thermal Imagers**  
BEŞİKCİ C., Arslan Y., Eker S. U.  
22nd Annual Meeting of the IEEE-Photonics-Society, Belek Antalya, Turkey, 4 - 08 October 2009, pp.162-163
- X. **III-V infrared detectors on Si substrates**  
Besikci C.  
Conference on Photodetectors - Materials and Devices V, San-Jose, Costa Rica, 26 - 28 January 2000, vol.3948, pp.31-39

## Supported Projects

- BEŞİKCİ C., TUBITAK Project, SAVM022, 2008 - 2013
- Beşikci C., Project Supported by Other Private Institutions, Tuygun Projesi, 2010 - 2012
- Beşikci C., Project Supported by Other Official Institutions, Hizmete Özel Proje, 2008 - 2012
- Beşikci C., Özbay E., TUBITAK Project, 105A005, 2006 - 2009
- BEŞİKCİ C., TUBITAK Project, SAVM004, 2006 - 2009
- Beşikci C., Project Supported by Other Official Institutions, Sensör Üretim Teknolojilerinin Geliştirilmesi, 2005 - 2006
- Beşikci C., Project Supported by Other Official Institutions, Hizmete Özel Proje, 2004 - 2006
- Beşikci C., Project Supported by Other Private Institutions, LWIR QWIP ve MCT Taramasız Geniş Formatlı Kızılötesi Odak Düzlem Matrisi Teknolojilerinin Geliştirilmesi, 2003 - 2005
- Beşikci C., TUBITAK Project, Kuantum Kuyulu Kızılötesi Dedektör Teknolojisinin Geliştirilmesi,, 2001 - 2003
- Beşikci C., Project Supported by Other Official Institutions, Hizmete Özel Proje, 1999 - 2002
- Beşikci C., Project Supported by Other Private Institutions, 3 5 ve 8 12 Dalgaboyu Aralıklarında InSb ve InAsSb Malzemelerine Dayalı Kızılötesi Dedektör Tek Gel, 1999 - 2001
- Beşikci C., Akın T., NATO Supported Research Project, Integrated Sensors and Sensor Systems for Industrial Applications, 1996 - 2000

Beşikci C., TUBITAK Project, GalnP/InGaAs/GaAs MODFET Yapılarının İncelenmesi ve Optimizasyonu, 1995 - 1998

## Patent

Gençer N. G., Carlak H. F., Besikci C., Method and System for Dual-band Active Thermal Imaging using Multi-frequency Currents, Patent, CHAPTER A Human Needs, The Invention Registration Number: US 10,123,704 B2 , Standard Registration, 2018

## Activities in Scientific Journals

Infrared Physics, Special Issue Editor, 2010 - 2010

## Memberships / Tasks in Scientific Organizations

TÜBİTAK BİDEB, Member of Advisory Board, 2019 - 2020, Turkey

## Tasks In Event Organizations

Beşikci C., Scientific Congress, Krakow, Poland, Temmuz 2020

Beşikci C., Quantum Structure Infrared Photodetectors International Conference 2018, Scientific Congress, Stockholm, Sweden, Haziran 2018

Beşikci C., Quantum Structure Infrared Photodetector International Conference 2016, Scientific Congress, Tel-Aviv-Yafo, Israel, Haziran 2016

Beşikci C., Quantum Structure Infrared Photodetector International Conference 2014, Scientific Congress, New Mexico, United States Of America, Temmuz 2014

Beşikci C., Bois P., Gunapala S., Liu,Liu H., Costard E., Quantum Structure Infrared Photodetector International Conference 2012 , Scientific Congress, France, Haziran 2012

Beşikci C., Gunapala S., Razeghi M., Andersson J., Bandara S., Costard E., Liu H., Perera A., Quantum Structure Infrared Photodetector International Conference 2010, Scientific Congress, İstanbul, Turkey, Ağustos 2010

Beşikci C., Photodetector Materials and Devices VI, SPIE International Symposium on Optoelectronics 2001, Scientific Congress, California, United States Of America, Ocak 2001

Beşikci C., LSD '99 The Third International Conference on Low Dimensional Structures and Devices, Scientific Congress, Antalya, Turkey, Eylül 1999

Beşikci C., Photodetectors Materials and Devices IV, SPIE International Symposium on Optoelectronics '99, Scientific Congress, California, United States Of America, Ocak 1999

## Metrics

Publication: 51

Citation (WoS): 702

Citation (Scopus): 651

H-Index (WoS): 17

H-Index (Scopus): 15

## Congress and Symposium Activities



SPIE Photonics West 2018, Invited Speaker, California, United States Of America, 2018

## **Awards**

Beşikci C., ODTÜ Yılın Tezi Ödülü, Prof. Dr. Mustafa Parlar Eğitim Ve Araştırma Vakfı, December 2014

Beşikci C., ODTÜ Yılın Tezi Ödülü, Prof. Dr. Mustafa Parlar Eğitim Ve Araştırma Vakfı, December 2010

Beşikci C., ODTÜ Yılın Tezi Ödülü, Prof. Dr. Mustafa Parlar Eğitim Ve Araştırma Vakfı, December 2008

Beşikci C., ODTÜ Yılın Tezi Ödülü, Prof. Dr. Mustafa Parlar Eğitim Ve Araştırma Vakfı , December 2005

Beşikci C., TÜBİTAK TEŞVİK ÖDÜLÜ, Tübitak, July 2002

Beşikci C., Araştırma Teşvik Ödülü, Prof. Dr. Mustafa Parlar Eğitim Ve Araştırma Vakfı, December 2000

Beşikci C., ODTÜ Başarı Ödülü, Odtü, June 2000

Beşikci C., Vakıfbank ODTÜ Başarı Ödülü, Odtü, June 1999

## **Non Academic Experience**

ASELSAN