## **ELENI ALOUPOGIANNI**

https://orcid.org/0000-0002-2183-312X

#### Also known as

Elena Aloupogianni

#### Websites & Social Links

Personal Page (https://foxelas.github.io)

CV & Other Info (https://foxelas.github.io/cv)

TokyoTech Research Repository (https://t2r2.star.titech.ac.jp/cgi-bin/researcherpublicationlist.cgi?

lv=en&q\_researcher\_content\_number=076c1c5aed94182479ab9a757343f7ee&alldisp=1&tab\_yf=2021)

Profile in TokyoTech (https://discover.titech.ac.jp/ambassador/elena-eleni-aloupogianni/)

#### Country

Greece, Japan

#### Keywords

medical image processing, multispectral images, texture analysis, macropathology, curvelet transform, carotid ultrasound, skin cancer detection, hyperspectral images

#### **Email**

eawrk@outlook.com

#### **Biography**

Eleni (Elena) Aloupogianni received her B.S.& M.S. diploma in Electrical and Computer Engineering from the National Technical University of Athens, Greece, in 2016. She earned a M.E. in Information and Communications Engineering in 2019 and a Ph.D. in Human-Centered Science and Biomedical Engineering in 2022, from Tokyo Institute of Technology, Japan. Her research interests include image processing, computer-assisted diagnosis, hyperspectral imaging and statistical analysis.

#### Employment (3)

#### Tokyo Institute of Technology: Meguro, JP

2021-04 to 2022-09 | Student Ambassador (Admissions Sec

tion)

**Employment** 

Source: ELENI ALOUPOGIANNI

#### Saitama Medical University: Morohongō, JP

2020-04 to 2021-09 | Teaching Assistant in Undergraduate E ngineering Workshops - 1. Applied engineering experiments, 2. Electrical and electronic experiments (Faculty of Health a nd Medical Care)

**Employment** 

Source: ELENI ALOUPOGIANNI

## Tokyo Institute of Technology, Obi Laboratory: Tokyo, JP

2018-02-01 to 2018-03-31 | Research Assistant - Image Ana Iysis in Skin Pathology (Department of Information & Communications Engineering)

**Employment** 

Source: ELENI ALOUPOGIANNI

#### Education and qualifications (3)

#### Tokyo Institute of Technology: Tokyo, Tôkyô, JP

2019-09 to 2022-09 | Doctor of Philosophy, Human Centere d Sciences and Biomedical Engineering Course (Departmen t of Information and Communication Engineering )
Education

Source: ELENI ALOUPOGIANNI

#### Tokyo Institute of Technology: Tokyo, Tôkyô, JP

2017-09 to 2019-09 | Master of Engineering, Information and Communications Engineering Course (Department of Information and Communications Engineering)

Education

Source: ELENI ALOUPOGIANNI

#### Ethniko Metsobio Polytechneio: Athens, GR

2011 to 2016 | Joint BSc and MSc (School of Electrical and Computer Engineering)

Education

Source: ELENI ALOUPOGIANNI

#### Invited positions and distinctions (1)

### The Japanese Society of Medical Imaging Technology

(JAMIT): Tokyo, JP

2022-08 | Honorable mention for Presentation in the 41st JA

MIT Annual Meeting (JAMIT 2022)

Distinction

Source: ELENI ALOUPOGIANNI

#### Membership and service (3)

#### IEEE Engineering in Medicine and Biology Society:

Piscataway, NJ, US

2021-11 to 2022-11 | Student Member

Membership

Source: ELENI ALOUPOGIANNI

#### Japanese Society of Medical Imaging Technology

(JAMIT): Tokyo, JP

2019-05 to 2022-11 | Student Member

Membership

Source: ELENI ALOUPOGIANNI

#### Obi Laboratory: Yokohama, JP

2018 to 2022 | Student Leader

Service

Source: ELENI ALOUPOGIANNI

#### Funding (3)

#### Monbukagakusho: MEXT Fully-funded Doctoral Course

Ministry of Education, Culture, Sports, Science and

Technology (Tokyo)

2019-09 to 2022-09|Salary award

Source: ELENI ALOUPOGIANNI

#### Monbukagakusho: MEXT Fully-funded Masters Course

Ministry of Education, Culture, Sports, Science and

Technology (Tokyo)

2017-04 to 2019-09|Salary award

Source: ELENI ALOUPOGIANNI

#### Mprosta Scholarship

Eurobank (Athens)

2011 to 2011 Award

URL: https://www.eurobank.gr/el/omilos/esg-environment-society-governance/koinonia/programma-mpro sta-gia-tin-paideiaA (https://www.eurobank.gr/el/omilos/esg-environment-society-governance/koinonia/programma-mprosta-gia-tin-paideiaA)

Source: ELENI ALOUPOGIANNI

#### Works (13 of 13)

# Security-enhanced firmware management scheme for smart home IoT devices using distributed ledger technologies

2023-06-22 | preprint

DOI: 10.21203/rs.3.rs-3077169/v1

Source: ELENI ALOUPOGIANNI

## Effects of dimension reduction of hyperspectral images in skin gross pathology

Skin Research and Technology 2023-02-01 | journal-article

DOI: 10.1111/srt.13270

Part of ISSN: 0909-752X

Part of ISSN: 1600-0846

Source: ELENI ALOUPOGIANNI

# Hyperspectral imaging for tumor segmentation on pigmented skin lesions

Journal of Biomedical Optics 2022-10-31 | journal-article

DOI: 10.1117/1.jbo.27.10.106007

Part of ISSN: 1083-3668
Source: ELENI ALOUPOGIANNI

## **Exploratory Data Analysis on Hyper-spectral Images of Pigmented Skin Lesions**

The 41st JAMIT Annual Meeting, Nagoya, Japan 2022-08-29 | conference-paper

Source: ELENI ALOUPOGIANNI

# Hyperspectral Imaging and Analysis for the Diagnosis of Pigmented Skin Lesions during Gross Pathology

2022-07 | dissertation-thesis

Source: ELENI ALOUPOGIANNI

# Hyperspectral and multispectral image processing for gross-level tumor detection in skin lesions: a systematic review

Journal of Biomedical Optics 2022-06-08 | journal-article

DOI: 10.1117/1.jbo.27.6.060901

Part of ISSN: 1083-3668
Source: ELENI ALOUPOGIANNI

## Design of a Hyper-Spectral Imaging System for Gross Pathology of Pigmented Skin Lesions

2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), Virtual, Mexico

2021-11-01 | conference-paper

DOI: 10.1109/embc46164.2021.9629512

Source: ELENI ALOUPOGIANNI

# Effect of formalin fixing on chromophore saliency maps derived from multi-spectral macropathology skin images

Medical Imaging 2021: Digital Pathology, Virtual, US

2021-02 | conference-paper DOI: 10.1117/12.2581926

Source: ELENI ALOUPOGIANNI

## Binary Malignancy Classification of Skin Tissue Using Reflectance and Texture Features from Macropathology Multi-Spectral Images (Special Issue on Journal Track Papers in IEVC2019)

IIEEJ Transactions on Image Electronics and Visual Computing

2019-12 | journal-article

DOI: 10.11371/tievciieej.7.2\_58
Source: ELENI ALOUPOGIANNI

### Binary Malignancy Classification of Skin Tissue using Reflectance and Texture Features from Macropathology Multi-Spectral Images

The 6th IIEEJ International Conference on Image Electronics and Visual Computing (IEVC 2019), Bali, Indonesia

2019-08-21 | conference-paper

Source: ELENI ALOUPOGIANNI

### Skin Cancer Detection Using Multi-Spectral Macropathology Images

2019-08 | dissertation-thesis

Source: ELENI ALOUPOGIANNI

### Binary Malignancy Classification of Skin Tissue using Reconstructed Reflectance from Macropathology Multi-Spectral Images

The 38th JAMIT Annual Meeting, Nara, Japan 2019-07-24 | conference-paper

Source: ELENI ALOUPOGIANNI

# Application of the Curvelet Transform on Ultrasound Images of the Carotid Artery; Curvelet-based Feature Extraction and their Physical Meaning

National Technical University of Athens 2016-11 | dissertation-thesis

Source: ELENI ALOUPOGIANNI

#### Peer review (1)

• review activity for Journal of biophotonics (1)

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