## Alia Andi

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## **EDUCATION**

## Ph.D., Electronic and Communication Engineering, Cankaya University, 2019

Concentrations: coding and information theory. Dissertation: efficient decoding of polar codes.

## M.A., Electronic and Communication Engineering, The Libyan Academy, 2006

Concentrations: Microwave and Communication Engineering.

Thesis: *Design and Implementation of IIR and FIR Digital Filters by Using Software.* 

## B.A, Electric and Electronic Engineering, Tripoli University, 1997

#### **WORK EXPERIENCE**

Associate Professor and Director of the Office of Scientific and Technical Affairs, High Institute of Industrial Technology - Engila, 2020- Until now

Courses: Antenna and propagation, electromagnetic, comm. Systems.

#### Ph.D. Student, Cankaya University, 2014-2019

lecturer and head of electric and electronic engineering, High Institute of Industrial

#### Technology - Engila, 2014-2006

Courses: Antenna and propagation, electromagnetic I, electromagnetic II, comm. Systems, The principle of comm., Digital comm., computer applications (MATLAB course), Supervising graduation projects.

Teaching Assistant, High Institute of Industrial Technology - Engila, 1999-2006

## As part time work, Lecturer, Tripoli university, Azawia university and, Naval academy

Courses: Antenna and propagation, electromagnetic I, electromagnetic II, comm. Systems, The principle of comm., Digital comm., computer applications (MATLAB course), electric network I, electric network II, Supervising graduation projects.

#### **RESEARCH FILDS**

Digital Signal Process. Coding and Information Theory.

#### **PUBLICATIONS**

## 1- FIR Digital Filter Design by Using Windows Method With MATLAB.

14<sup>th</sup> International Conference on Sciences and Techniques of Automatic control & computer Engineering (STA'2013), December 20-22, Sousse, Tunisia.

## 2- Effect of Coefficient Quantization on The Frequency Response of An IIR Digital Filter By Using Software.

Published in: Systems Signals and Devices (SSD), 2010 7th International Multi-Conference on, 27-30 June 2010, Jordan, Amman, Publisher: IEEE

## 3- FIR Digital Filter Design by Using Frequency Sampling Method.

10<sup>th</sup> International Conference on Sciences and Techniques of Automatic control & computer Engineering (STA'2009), December 20-22, Hammamet, Tunisia.

## 4- Implementation and Simulation CDMA System Using MATLAB with Simulink tools.

The Second International Conference on image & signal processing and their applications, 2010, December 6-8, Biskra, Algeria.

#### 5- Investigation and simulation of W-CDMA Technique.

12<sup>th</sup> International Conference on Sciences and Techniques of Automatic control & computer Engineering (STA'2011), December 18-20, Sousse, Tunisia.

## 6- fast decoding of polar codes using tree structure.

IET Journal, 2019.

## 7- high speed decoding of polar codes.

10<sup>th</sup> International exhibition of inventions, China, 2018.

8- the effect of error propagation on performance of polar codes utilizing SC.

AEM Journal, 2019.

# 9- Improvement of the Performance of Polar Codes by Using Successive Cancellation List Decoding With CRC

2021 IEEE 1st International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering MI-STA, 25-27 May 2021, Tripoli-Libya

## **SKILLS**

Programming ability in MATLAB.