

MEMORANDUM

TO: Library

FROM: Dr. Hassan A. N. El-Fawal
Dean of School of Sciences and Engineering

SUBJECT: Master Thesis

DATE: November 19, 2020

16/12/2020

Please find the attached signed copy of thesis submitted by **Ehab Maged Talaat ElGuindy** in partial fulfillment of M.Sc. degree, which has satisfied the requirements of the **Electronics & Communications Engineering Graduate Program** and is ready for binding and display in the library.

Name of student: Ehab Maged Talaat ElGuindy

Department: Electronics & Communications Engineering Department

Advisor: Dr. Karim Seddik

Thesis title: Reinforcement Learning-based Access Schemes in Cognitive Radio Networks

C. Candidate
Department Chair
Registrar
Dean of Graduate Studies



THE AMERICAN UNIVERSITY IN CAIRO

الجامعة الأمريكية بالقاهرة

School of Sciences and Engineering

**“Reinforcement Learning-based Access Schemes in Cognitive
Radio Networks”**

A Thesis submitted by

Ehab Maged Talaat ElGuindy

to the **Electronics and Communications Engineering Department**

on **November 19, 2020**

in partial fulfillment of the requirements for the degree of

Master of Science in Electronics and Communications Engineering

Has been approved by

Dr. Karim Seddik (Advisor)

**Professor, Electronics and Communications Engineering Department
The American University in Cairo**

Dr. Ayman Elezabi (Internal Examiner)

**Associate Professor, Electronics and Communications Engineering Department
The American University in Cairo**

Dr. Ahmed Khattab (External Examiner)

**Associate Professor, Department of Electronics and Electrical Communications
Cairo University**

Dr. Sherif Abdel Azeem (Moderator)

**Professor and Graduate Program Director, Electronics and Communications Engineering
Department, The American University in Cairo**

11/23/2020

**Graduate
Program Director**

Date

16/12/2020

School Dean

Date



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Proof of IRB Approval or Waiver for Completed Graduate Thesis

To be submitted with completed thesis and other forms requested below

All research involving living human beings or bodily tissue samples requires advance approval from AUC's Institutional Review Board (IRB). Each student's thesis advisor is responsible for ensuring that this form is filled in accurately. Until this form is completed and approved, the thesis cannot be posted on DAR, and the student is not eligible to graduate. *Please attach to this form, a copy of the IRB approval letter, the abstract of the student's thesis and thesis copyright and availability form.*

Student Name: Ehab Maged Talaat ElGuindy

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AUC ID # 800112318

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Department/Unit: Electronics and Communications Engineering

School: Sciences and Engineering

Thesis Title: Reinforcement Learning-based Access Schemes in Cognitive Radio Networks

Date: November 22, 2020

Name of Thesis Advisor: Dr. Karim Seddik

Thesis Advisor's Email: kseddik@aucegypt.edu

The advisor should check one of the following boxes.

IRB approval has already been obtained for this thesis. (Please attach a copy of the IRB approval letter.)

IRB approval is not necessary for this thesis, since the research is not concerned with living human beings or bodily tissue samples.

Signature of Student:

Ehab ElGuindy

Date: November 22, 2020

Signature of Thesis Advisor:

Date: November 22, 2020

Name and Signature of School Dean:

Date: 16/12/2020

Step 1: Student to Department or Program which needs to submit to the Dean of the School:

(1) The Proof of IRB Approval /Waiver together with a (2) copy of the IRB approval letter from IRB chair (3) thesis abstract and (4) the thesis copyright and availability form

Step 2: The Office of the Dean of the School needs to submit to the library:

The above four documents in addition to (5) the School Dean's memo (6) with the thesis final copy