

Curriculum Vitae (CV)

**Nour Said Ibrahim Bakr**



**Personal Information:**

**Academic Rank:** Assistant Professor.

**Department:** Biomedical Engineering.

**Specialization:** Bioinformatics.

**Position:** Manager of Quality Assurance Unit – H.T.I - 10th of Ramadan City.

**Research Gate:** <https://www.researchgate.net/profile/Nour-Bakr-2>

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## Education:

<b>Degree</b>	<b>Discipline</b>	<b>Institution</b>	<b>Year</b>
<b>Ph.D.</b>	Bioinformatics, Data Compression, DNA Sequence Compression	Systems and Biomedical Engineering Department, Cairo University, Faculty of Engineering	2011-2017
<b>M.Sc.</b>	Bioinformatics, Data Compression, DNA Sequence Compression	Systems and Biomedical Engineering Department, Cairo University, Faculty of Engineering	2003-2008
<b>B.Sc.</b>	Biomedical Engineering	Biomedical Engineering Department, Higher Technological Institute	1998-2003

## Academic Experience:

**Institution:** Biomedical Engineering Department, Higher Technological Institute

**Rank:** Assistant Professor

**Dates:** 2019

**Institution:** Biomedical Engineering Department, Higher Technological Institute

**Rank:** Research Assistant (PhD student)

**Dates:** 2009

**Institution:** Biomedical Engineering Department, Higher Technological Institute

**Rank:** Teaching Assistant

**Dates:** 2003

## Research interests:

- Systems for deaf, dumb and blind.
- Bioinformatics.
- Data Compression.
- Biomedical Systems.
- Embedded Systems.

## Publications:

**Nour S. Bakr**, Amr A. Sharawi, “DNA Lossless Compression Algorithms Review”, American Journal of Bioinformatics Research, 2013, Vol. 3, No. 3, pp. 72-81.

**Nour S. Bakr**, Amr A. Sharawi, “Improve the Efficiency of gzip Compression on DNA Sequence”, Proceeding of the 2nd International Sino-Egyptian Congress on Agriculture, Veterinary Sciences and Engineering (ISECAVE2), Benha, Egypt, 2017.

**Nour S. Bakr**, Amr A. Sharawi, “Improve the Compression of Bacterial DNA Sequence”, Proceeding of the of 13th International Computer Engineering Conference (ICENCO 2017), Cairo, Egypt, 2017. (IEEE xplore).

**Certifications or Professional Registrations:**

**Concepts of quality assurance and accreditation for academic leaders** in colleges and institutes of higher education, **naqaae**-November 2018.

**Effective teaching and learning strategies** for colleges and institutes of higher education, **naqaae**-November 2018.

**Description of programs and courses and evaluation of learning outcomes** for colleges and institutes of higher education, **naqaae**-April 2019.

**Examination and student evaluation systems** for colleges and institutes of higher education, **naqaae**-February 2020.

**Self-evaluation** of higher education institutions for programmatic accreditation, **naqaae**-February 2021.

**Self-evaluation** of higher education institutions for the administrative system, **naqaae**-March 2021.

**Strategic Planning** for colleges and institutes of higher education, **naqaae**-March 2022.

**External review** for colleges and institutes of higher education, **naqaae**-October 2022.

**Digital Transformation in Higher Education,**

**DAAD Kairo Akademie**, September 2022.

**Strategic Planning as Core to Strategic Management,**

**DAAD Kairo Akademie**, September 2022.

## Honors and Awards:

**Honored by the BEAT Scientific Club** - Faculty of Engineering, Cairo University for the **joint work and support for organizing and holding the first BEAT conference** (Biomedical Engineering Awareness and Technologies) at the Higher Technological Institute, 10th of Ramadan City, April 2018.

**Honored by the Engineers Syndicate in Sharkia Governorate**, in appreciation of his **good effort and serious work in serving our beloved country, Egypt and its students**, March 2019

**Honoring from the Innovators Support Fund (ISF)** as a supervisor for the Ultra-Vision team "Ultra Sound Kit Project" **among the 20 best projects in Egypt** in the Innovation Catalyst IC2022 competition, 2022.

**The 3th Place award** with "**Sign Language Glove Project**", in the 3th Egyptian Junior Researcher Completion – 14th UGRF, Nile University, August 2022.

**The 2nd place award** in the Geniuses Forum for the academic year 2022/2023 in the student project "**Strabismus camera**" at the Obour Institute under the auspices of the General Administration of Student Welfare at the Ministry of Higher Education.

**The 3th place award** in the Geniuses Forum for the academic year 2022/2023 in the student project "**Virtual reality applications in medicine**" at the Obour Institute under the auspices of the General Administration of Student Welfare at the Ministry of Higher Education.

## Teaching Experience:

### Courses taught

#### Computers and Data Processing:

Data Structures, Data Compression and Medical Informatics.

#### Bioinformatics:

Biological Data Bases and discuss the Biological Problems such as Gene Finding and Evolutionary Tree Construction and Disease Diagnosis.

#### Computer Programming:

Solve problems, design algorithms and write programs with C++ Language.

#### Medical Imaging Equipment's:

Radiation physics, different types of X-ray machines, computed tomography, recording media, X-ray safety and protection.

#### Nuclear and Radiating Systems:

Nuclear medicine physics, PETCT, SPECT, Gamma Camera, Gamma Knife, Cobalt60 and linear accelerators, Nuclear Medicine safety and protection.

#### Basics of Electronics:

Semiconductors, Diode, BJT, MOSFET, and applications (Amplifier and Filters).

#### Biomedical Electronics:

Sensors (Transducer and Electrodes), Bio-amplifiers and Medical Applications.

#### Electronic Systems:

Biomedical System Design using Arduino.

#### Computer Fundamentals (1):

Logic Gates, En/Decoder, Mux/Demultiplexer, Memory.

#### Computer Fundamentals (2):

Basic structure of computer design (combinational and sequential circuits).

ICDL, International Computer Driving Licence.

IT, Windows, Microsoft Office (Word, Power Point, Excel, and Access), and Internet.