

# Republic of Tunisia Ministry of Higher Education and Scientific Research University of Carthage Higher Institute of Information and Communication Technologies



#### MASTER THESIS

### Submitted in Fulfilment of the Requirements of the degree of

RESEARCH MASTER'S DEGREE

Mention: Robotics, Computer Science and Communication Systems

Specialty: Data Science and Smart Services

## $\begin{array}{c} by \\ \text{MARIEM KAMMOUN} \end{array}$

## Data-driven Strategy based on Transformative Power of Data-science for the optimization of Solar Energy Generation and Integration into the Electrical Grid

Defended on October 22, 2024 in front of the Examination Jury composed of:

 $\begin{array}{lll} \textit{President}: & \text{Lazhar MANAI} & \text{ISTIC} \\ \textit{Reviewer}: & \text{Zaineb TRABELSI} & \text{ISTIC} \\ \textit{Supervisor}: & \text{Manef BOUROGAOUI} & \text{ISTIC} \\ \end{array}$ 

#### Realized within

QehnA Team - Power quality research with power electronics and advanced control Laboratory of Electrical Systems, ENIT

University Year: 2023 - 2024