ELMEHDI ESSAMIT

Engineering student · Electrical & Energy Engineering · EHTP

ELECTRICAL ENGINEERING CONSULTANCY INTERNSHIP · 6–8 WEEKS · SUMMER 2027

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First-year EHTP student with a mathematics and physics preparatory background. Experience in inductive power-transfer experiments, scientific computing, and technical workshops. Seeking to contribute to measurements, calculations, and technical documentation under supervision.

EDUCATION

École Hassania des Travaux Publics · EHTP — 2026–2029

State engineering degree · Electrical and Energy Engineering, in progress. Expected graduation: 2029.

2024–2026 · MPSI / MP preparatory classes · Lycée Omar Ibn Al Khattab, Meknès.

2024 · Baccalaureate in Mathematical Sciences B · Très Bien distinction · Lycée Le Jasmin 2, Sefrou.

SELECTED ENGINEERING PROJECTS

Resonant wireless power transfer · TIPE — 2026

Designed and characterized an inductive coupling bench, using a function generator and oscilloscope for tuning. Reported peaks: 7.4% in non-resonant operation and 23% in resonant operation at 34 kHz. Results apply to the tested configurations; original slides available.

Dossier & results → elmehdi-essamit.me/work/wireless-power/

Cascade-GNN — 2026

PowerGraph-based graph-classification pipeline with GNN models and an XGBoost baseline. Data imports, splits, metrics, line-level attribution, and tests. Research prototype; quantitative validation is being consolidated.

Method & code → github.com/akeanti/cascade-gnn

EXPERIENCE & TEACHING

Vice-president & technical instructor · BeurdByte Builders — 2024–2026

Prepared and led C, Arduino, ESP, and IoT workshops. Guided students through debugging and prototype development, and coordinated the club’s technical activities during preparatory classes.

SKILLS & ADDITIONAL TRAINING

Experiments: RLC circuits, inductive coupling, oscilloscope, function generator.
Scientific computing: Python, PyTorch / PyG, XGBoost; reproducible pipeline and tests.
Embedded systems & teaching: C, Arduino, ESP / IoT; workshops and learning materials.
Introductory training: MATLAB, Simulink, Simscape Onramps (MathWorks); Electric Power Systems (University at Buffalo / Coursera).

LANGUAGES

Arabic: native · French: fluent · English: professional (self-reported levels).