

# Rachida Kone

100 Red Fox Drive,  
Dallas, GA 30157

470 455 5991  
[rachida.koco@gmail.com](mailto:rachida.koco@gmail.com)

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## Summary

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**Electrical Engineer with an experience in power generation and distribution systems, renewable energy, high and low-voltage circuit design and PLC programming.** Strong knowledge of 3-phase and single phase electric power and star/delta start. Excellent organization, analytical and problem solving skills and ability to quickly learn new technologies. Goal oriented candidate with a passion for challenges, a good communication, interpersonal and teamwork skills. Candidate with a solid understanding of electrical engineering theories. Demonstrated innovation, flexibility, initiative and ability to manage workload achieving desired result with minimal supervision.

## Education:

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**Master of Science in energy and electrical engineering** February 2016  
International Institute for Water and Environmental Engineering (2iE), Ouagadougou, Burkina-Faso  
GPA: 3.57

**Bachelor of Science in water and environment engineering** January 2014  
International Institute for Water and Environmental Engineering (2iE), Ouagadougou, Burkina-Faso  
GPA: 3.33

## Experience:

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**Biomass, Energy and Biofuels laboratory (2iE)** Ouagadougou, Burkina-Faso July 2015 – January 2016  
Energy Engineer Intern

- Optimized the transesterification of sunflower oil using enzymes extracted from *Jatropha Curcas* and *Adansonia grandidieri* germinated seeds.
- Designed and conducted tests to determine the influence (temperature, molar ratio, type of alcohol, of different parameters on the enzymatic transesterification of sunflower oil.
- Analyzed and interpreted tests data to determine the optimal conditions (temperature, molar ratio, type of alcohol) for the transesterification of vegetable oils, obtaining 88% yield of ester.

**ID Consult** Ouagadougou, Burkina-Faso May 2014 – August 2014  
Electrical and Energy Engineer Intern

- Designed electrical systems including solar systems, centralized air conditioning systems and backup generators for a hospital and 3 office building, ensuring compliance with specifications, codes or customer requirements.
- Designed public lighting and electrical grids to provide energy to remote areas by complying with state regulations.
- Created AC/DC system calculation, protection schematic diagrams, lighting plans and electrical implementation plans.

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### **Solar Energy and Energy Savings Laboratory (2iE)** Ouagadougou, Burkina-Faso May 2013 – August 2013

Electrical and Energy Engineer Intern

- Worked under senior engineers and PhD students on an experimental hybrid system for decentralized renewable energy production based on PV systems without batteries and biomass.
- Tested the dual-fuel system which consisted of progressively replacing 100% of the diesel used in the engine by a local vegetable oils (Jatropha Curcas oil).
- Monitored and evaluated the hybrid electrical system.

**COGEB** Ouagadougou, Burkina-Faso

May 2012 – July 2012

Civil Engineer Technician intern

- Shadowed civil engineers during daily tasks for the construction of a paved road.
- Performed proctor and density test per soil compaction requirement.
- Determined soil properties in laboratory and tested concrete quality in laboratory.
- Calculated the reinforcement for all elements (beams, poles, footings).

## Training

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**H2K Infosys** 5450 McGinnis Village Place, Ste #103, Alpharetta GA 30005 March 2016 – October 2017

Quality Assurance Training

- Strong knowledge of Software Development Life Cycle (SDLC) and Software Testing Life Cycle (STLC).
- Developed and executed Test Plans, Test Cases and Test scripts.
- Used TOAD and SQL to verify the data in the database.
- Analyzed and reported test results and defects.

## Projects

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- Designed an electrical system for a five story building: high voltage, low voltage, renewable energy and air conditioning.
  - ✓ Designed a 33 kV line, a 200 KWc PV system and a 400 kVA backup generator.
  - ✓ Estimated materials, labor and construction cost for budget preparation and produced construction documents using AutoCAD.
- Designed a multi-source power system (photovoltaic- wind turbine – Diesel generator) for a village of 600 people in Chad.
  - ✓ Determined electrical loads and used HOMER to design an optimal and cost effective hybrid system.
  - ✓ Developed a Worksheet under Excel to design a multi-source power system.
- Programmed a PLC to supervise and control a 33 KWc photovoltaic field.
  - ✓ Selected the set of sensors and meters necessary for the supervision of the photovoltaic field.

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- ✓ Created a program with SFC to supervise the PV system.

### **Technical Skills**

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AutoCAD    PLC    GIS    SAP    SQL    C#    MATLAB    MS Project    Microsoft Excel  
Microsoft Word    Microsoft Access    Microsoft PowerPoint    Microsoft Outlook    HOMER    Xrelais  
PVsyst    VrV Express    XLPro    NEPLAN    Load Runner    RETSCREEN

### **Activities**

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- Member of Women Engineers Association (2iE).
  - ✓ Organized activities to promote engineering to girls.
  - ✓ Raised funds for widows, refugees and orphans.
- Women Basket Ball team (2iE).