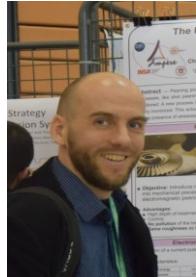


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# Dr Fabien SIXDENIER

Assistant professor

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## Skills

Teaching in Electrical Engineering (Bachelor and Master degrees).

Research in characterizing and modeling of ferromagnetic materials (NiFe alloys, nanocrystalline, FeCo, FeNi) and design topology of transformers for power electronics

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## Expérience

### Université Claude Bernard Lyon 1/Maître de conférences

2006 to today

- Responsible of OMEGA building (laboratoire AMPERE)
- Responsible of 5 master and 3 bachelor courses
- Co-Responsible of electrotechnical cursus of the electrical engineering master degree.
- Co-director of 7 Phd thesis
- Director of three 3 Phd thesis
- Reviewer pour les revues IEEE Power electronics, Transactions on Magnetics, Journal of magnetism and magnetic materials
- Associate member of Supergrid Institute (5%)

### Université Claude Bernard Lyon 1/Phd Student

2002 to 2005

“Prédictions de signatures électriques en prenant en compte les lois de matériaux” : Modelling of electromagnetic systems by coupling finite elements method and reluctance network methods

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## Formation

**Université Claude Bernard Lyon 1/Habilitation to direct research activities**  
2014

"De l'apport de la modélisation des matériaux magnétiques doux aux applications du génie électrique" (benefits from modelling magnetic materials for electrical engineering applications)

**Université Claude Bernard Lyon 1/Phd Thesis**

2005

"Prédiction de signatures électriques dans un actionneur en prenant en compte les lois de matériaux", Université Claude Bernard Lyon 1

**Université Claude Bernard Lyon 1/Master degree in Electrical Engineering**

2002

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## Distinctions

- Best paper award, conférence EPEC 2015, [Comparison between numerical and analytical methods of AC resistance evaluation for medium frequency transformers : Validation on a prototype transformer.](#)

## 5 most relevant publications

1	<a href="https://doi.org/10.1109/TMAG.2018.2858743">https://doi.org/10.1109/TMAG.2018.2858743</a>	Accurate models of proximity losses in transformers
2	<a href="https://doi.org/10.1108/COMPEL-12-2018-0535">https://doi.org/10.1108/COMPEL-12-2018-0535</a>	Temperature dependent hysteresis model
3	<a href="https://doi.org/10.1109/TPEL.2014.2330952">https://doi.org/10.1109/TPEL.2014.2330952</a>	Accurate model of core losses in DC/DC converter
4	<a href="https://dx.doi.org/10.1109/TMAG.2013.2285274">https://dx.doi.org/10.1109/TMAG.2013.2285274</a>	Statistical study of magnetic performances of nanocrystalline cores

5	<p><a href="https://doi.org/10.1109/APEC.2019.8722279">https://doi.org/10.1109/APEC .2019.8722279</a></p>	<p><b>Design of a low-Capacitance Planar Transformer for a 4 kW/500 kHz DAB Converter</b></p>