

# Etienne BURDET

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## EDUCATION

### UNIVERSITÉ PARIS-EST

Phd in Urban Engineering  
 Expected Jan 2015 | EIVP, FR

MSc. in Urban Engineering  
 Sustainable Urban Development  
 Sept 2011 | UMLV, FR

### ÉCOLE NORMALE SUPÉRIEURE DE CACHAN

Civil Engineering  
 Graduated Sept 2011 | ENSC, FR

Agrégation - Civil Engineering  
 ranked 9th, 2010 | ENSC, FR

## SCIENCE MANAGEMENT

### INTERNSHIP SUPERVISOR

Msc - Architecture  
 Study of energy in vernacular and modern morphologies in Morocco.  
 Undergraduate - Physics  
 Multi-modal block scale modeling with hydrodynamic models.

### SEMINAR

Organized 20 sessions, including international invited speakers.

## SKILLS

### PROGRAMMING

Commonly used :  
 Matlab/Octave • Mapple •  
 XQuery/XML •  $\text{\LaTeX}$   
 Familiar :  
 C++ • HTML/CSS

### SOFTWARE

Specialized :  
 CitySim (trained at EPFL) • Rhino •  
 Cast3m • FEAP  
 General :  
 Adobe Illustrator • Freeplane • Git

### LANGUAGES

French : native  
 English : fluent (965 TOEIC,  
 conferences, papers, teamwork)

## RESEARCH

### ENGINEERING SCHOOL OF THE CITY OF PARIS

Phd (dir. Y.Diab) | Oct 2011 – Present | Paris, FR

Modeling of urban energy fluxes for urban design. I developed (theory and software) an integrated model of canopy, building energy and radiosity. Part of the SERVEAU project, a professional software for all energy consumptions (building, district, mobility and life cycle) in urban planning, designed with stakeholders, planners and engineering firms.

### URBAN MORPHOLOGY LAB, CSTB

Msc (dir. S.Salat) | Feb - Sep 2011 | Paris, FR

Mathematical taxonomy of urban fabrics. I organized as many architectural and urban typologies as possible into a more general, mathematically based, framework.

### UNIVERSITY OF COLORADO BOULDER

Intern (dir. V.Saouma) | April - Sep 2009 | Boulder, CO

Hybrid simulation of reinforced concrete beams under seismic loads. Help in coding, software testing, experiment setting and results analysis, in a large team.

## TEACHING

### Lecture (Master)

Dense cities and energy.

### Studios & lab (Undergraduate)

Thermal analysis, Paris factor 4, Environmental impact assessment, Structural analysis, Architectural acoustics.

## PUBLICATIONS

- E. Burdet, M. Colombert, D. Morand, and Y. Diab, "Integrated canopy, building energy and radiosity model for 3D urban design," *Energy and Buildings*, 2014 (submitted).
- E. Burdet, "Modelling of Energy Fluxes for Urban Designs," in *PLEA 2013 Sustainable Architecture for a Renewable Future*, (Munich), 2013.
- E. Burdet, M. Colombert, D. Morand, and Y. Diab, "Methodology for the Life Cycle Energy Assessment of Urban Designs," in *EcoBalance*, (Yokohama, Japan), 2012.
- E. Burdet, M. Colombert, D. Morand, and Y. Diab, "Modélisation des Flux Énergétiques Urbains pour les Projets d'Aménagements," in *Proceedings of Futurs Urbains.*, 2013.
- E. Burdet, *Taxinomie des Tissus Urbains*. Master's thesis (on request, unpublished), Université Paris-est Marne la Vallée, 2011.
- E. Burdet, M. Colombert, D. Morand, and Y. Diab, "Modèle multicouche couplé Bâti - Canopée urbaine," in *30 ème rencontres de l'Association Universitaire de Génie Civil*, (Cachan, France), 2013.