

Double degree programs at GT-Lorraine

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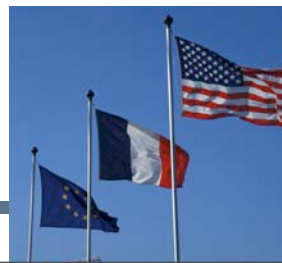
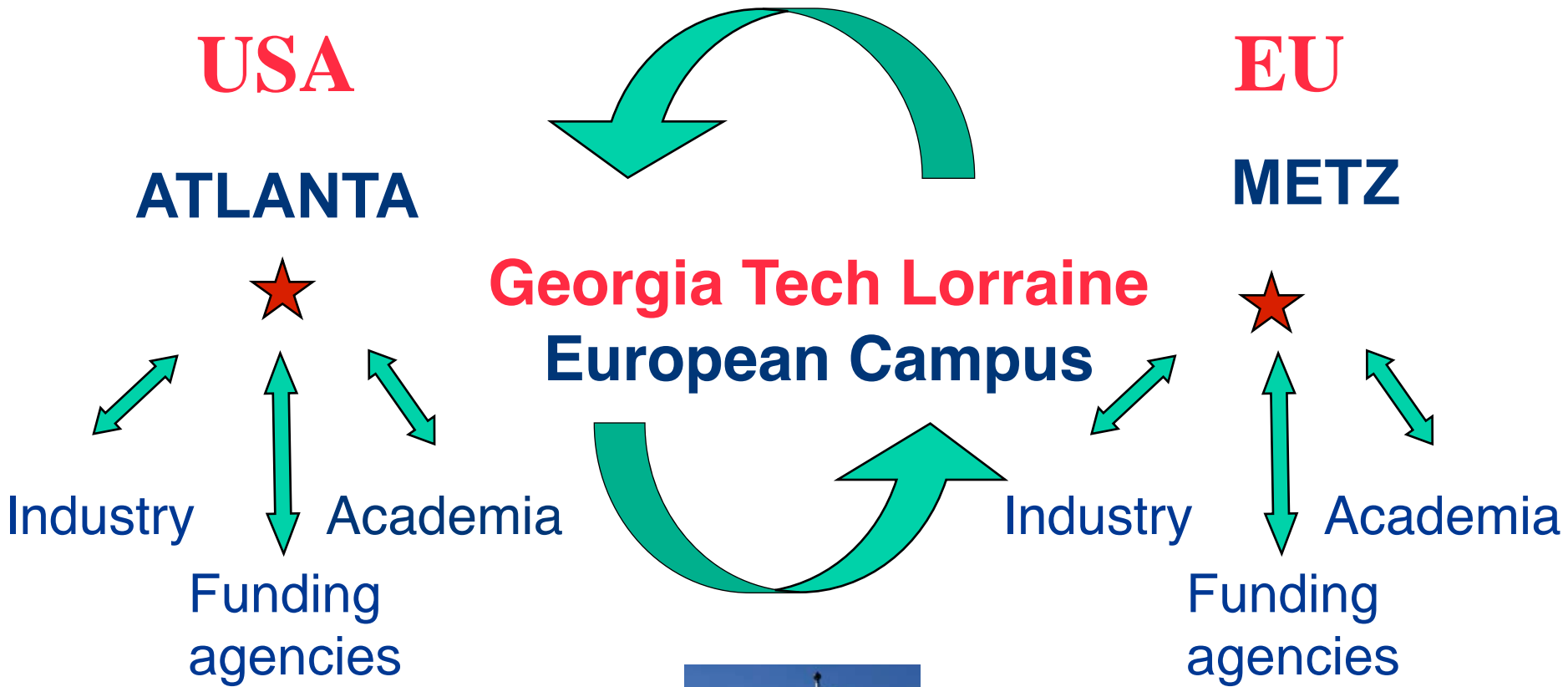
Academic Program Coordinator, Georgia Tech Lorraine

Professor of Electrical and Computer Engineering

Georgia Institute of Technology



GTL Mission: Innovative collaborations in research, education, and economic development with European partners



Georgia Tech Lorraine

- European campus of GT created in 1990
- Education in english by GT faculty
- A GT campus in heart of Europe
- 1200 graduate students since 1990
- Dual Master degrees in Computer Science, Electrical & Computer Engineering, Mechanical Engineering with key partner schools in France and EU
- Research: GT-CNRS UMI 2958
 - Secure Communications
 - Optoelectronics & nanomaterials
 - Computer modeling and design
 - Ultrasonics and sensors
 - Functional materials
 - Robotics & smart homes



Current Graduate Programs

- Computer Science (CS), Electrical & Computer Engineering (ECE), Mechanical Engineering (ME)
- Admission and degree requirements of the Georgia Institute of Technology: GPA, GRE, TOEFL
- Students at GT-L are Georgia Tech students
- 1200 MS students since 1991
- 197 students enrolled in Fall 08:
 - 166 Master of Science
 - 17 PhD
 - 14 Bachelor of Science



Education & research offer

- Degrees available at GT-L
 - Master of Science
 - PhD
- Areas of specialization:
 - Computer Science (CS)
 - Electrical & Computer Engineering (ECE)
 - Mechanical Engineering (ME)
- Double degree program for Master of Science with key european partner institutions: Supélec, ENSAM, TUM, ...
- Opportunity of continuing with PhD within the UMI 2958

Education offer

Double degree program:

3 semesters for 2 engineering degrees:

- Diplôme d'Ingénieur
- Master of Science

Fall



Aug Dec

Spring



Jan Apr



partner schools signed a cooperation agreement with GT

Diplôme d'Ingénieur
+
Master of Science

Program curriculum

- Close relation between education & research
- Interdisciplinary technical areas available:
 - Photonics, telecom, micro & nano technology
 - Functional materials, ultrasonics
- Strong interaction with research at UMI 2958:
 - Fully integrated program
 - Benefit from close interaction between each area
 - Special Topics: beta course (L/G) developed from research activities
 - Research seminars

Master program structure

- two options:

- specific to ECE
- with thesis: 18 SCH of courses + 12 SCH of research
- without thesis: 30 SCH of course
- 6 SCH of courses transferred from partner school

		non thesis	thesis
Major	Group 1 (OPT)	9 SCH	6 SCH
	Group 2 (COM or Micr)	9 SCH	6 SCH
Minor	Group 3	6 SCH non ECE	
Electives	Group 4	6 SCH	12 SCH

Master Program Curriculum

- two course curriculum for Major in Photonics:
 - OPT & COM: optical telecom system
 - OPT & Micr: optical component design
 - typical course combinations:

OPT & COM	OPT & Micr
Electro-optics, fiber optic network, quantum communications,	optoelectronics, electro-optics, nanophotonics
Information theory, coding, digital communications, cryptography & security	gigascale integration, microelectronic technology

Timing & funding

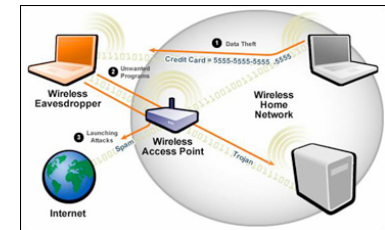
- Electives (non-thesis): Special Problem courses can be used
- Thesis option: demanding research work, 1 or 2 publications and conference presentation expected
- Timing: 16 to 20 months program
- Funding
 - program tuition & fees 12 k€ over 20 months
 - assistantship - teaching or research - \$1100 to \$1700/month
 - sources available: grants, internship, ...
 - bank loan

Research

GT CNRS UMI 2958

Unique international research lab between GT and CNRS
Mirror lab on the GT campus in Atlanta

- Secure Communications
- Optoelectronics & nanomaterials
- Computer modeling and design
- Ultrasonics and sensors
- Functional materials
- Robotics & smart homes



PhD program structure

- Continuation of the Master program
- Pass the preliminary examination (65%) & proposal
- Min cumulative GPA 3.0/4.0

		non thesis	thesis
Major	Group 1 (OPT)	9	6
	Group 2 (COM or Micr)	9	6
Minor	Group 3	9 SCH non ECE	
Electives	Group 4 (OPT + COM or Micr)	16	12+4

- Transatlantic cooperation: 1 to 2 sem. on GT campus
- Evaluation:
 - final dissertation
 - ≥ 4 publications and ≥ 2 conference presentations

PhD Program Curriculum

- two course curriculum for Major in Photonics:
 - OPT & COM: optical telecom system
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 - 6 SCH courses transferred from partner school
 - typical course combinations

OPT & COM	OPT & Micr
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Timing & funding

- Timing

- typical duration Master of Science + PhD: 4½ years
- Framework

Master	2½ years	1½ years
Prelim	Proposal	Final

- Funding

- European & ANR contracts funds
- From US: NSF, Georgia Tech
- FACE program

Contact information

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