LABORATORY OF CAD CAM CAE
UNIVERSIDAD EAFIT, COLOMBIA
CALLS FOR APPLICANTS

Call	**Permanent Call in Applied Computational Geometry Appl_Comp_Geom_Permanent (start 01-2016)**
Goal:	M.Sc. and/or Ph.D. Degrees with emphasis in writing and application of computational geometry software in one or more interest areas (mechanics, robotics, design, manufacture, medicine, geo sciences, environment, security, material science, man – machine interfaces, augmented reality), for the international technical community. The applicant must be able to interact with people of diverse cultures, to travel, and reside abroad for extended periods of time. Registration and good standing in the M.Sc. or Ph.D. academic life of the Research Group are a sine-qua-non conditions.
Closing Date:	N/A
Level of Study Sponsored:	M.Sc. or Ph.D.
Profile Needed:	1. B.Sc. or M.Sc in Engineering, Physics, Mathematics or Computer Science. Undergraduate students may undergo the training / screening if they have completed 80% of the required academic credits. 2. Research Interest in Computational Geometry applied to one of Mechanics, Computer Graphics, Medicine, Design, Manufacturing, Robotics and Manipulators, Material Science, Biology, Chemistry, Geo Sciences, etc. 3. Grade average over 80%. 4. Strong inclination to development of computer applications. 5. Availability for extended Research Internships abroad. 6. Availability for full time graduate school activity. 7. Capacity for Independent Study, Problem Solving, Responsibility, Truth, Loyalty, Capacity to help others, Common Sense.
Plus:	1. Honorary Courses or Honorary Mentions in Mathematics and / or Computer Science. 2. Programming Skills in MATLAB, C, C++, Java, Python. 3. Experience in Teaching or Student Academic Tutoring. 4. Other Academic Distinctions or Scientifically Demanding

	Activities. 5. Participation in International Conferences. 6. TOEFL or equivalent over 75%. 7. Tuition and / or Maintenance resources from other sources.
Process:	Applicant will be evaluated during a 6-12 months research internship with the Research Group. If such an internship is not possible, applicant must take and pass a Graduate Level Course with the Research Group. In any case, applicant must co-author a research manuscript Submitted / Accepted or Published in an International Journal, Conference or Book.
Offer:	For the length of the M.Sc. or Ph.D. studies, will provide conditioned Tuition and/or Maintenance expenses. Continuation of support will be determined as per research and academic performance, publications, academic and personal etiquette, and overall integration to the principles and values of U. EAFIT. If applicant has resources (Tuition or Maintenance) from other sources, such an item will not be provided by the present offer. Beneficiary signs an I OWE YOU for the resources given to him / her, providing collaterals for the debt. Normally, the 100% of the debt is forfeit upon termination of the degree and certification of the publications achieved.
Obligations:	a- Compliance with the Rules, Dates, Deadlines, and Regulations of U. EAFIT. b- Steady international ISI or Scopus publications stream. c- Collaboration with research groups abroad. d- Proposal Writing for Research and Development Fund Raising. e- Adherence to international copyright, trademark, academic, travel, laws and Etiquette. f- Coaching of junior research group pupils. g- Administrative load in front of Public or Private sponsors.
Contact:	Prof. Dr. Ing. Oscar Ruiz e-mail: oruiz@eafit.edu.co tel: +57-4- 261-9382 cel: +57-300 496 6675 Universidad EAFIT. Campus Medellin, COLOMBIA
Notes:	This opportunity is an academic / scientific one and takes

	place only with strict adherence and good academic stand and progress in the Graduate Degrees of U. EAFIT. Withdrawal of such academic programs will cause immediate interruption of any material and academic support, and the recollection of the resources invested in the applicant, with the corresponding interests and fines, including sanctions to the properties of individuals presented as collaterals and deportation of the host country, if applicable.

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Call	**Comp-Geometry-01-2019 (CLOSED)**
Subject	**Development of Software for Shape Optimization in Lattice / Porous Materials with emphasis in Additive Manufacturing and Industrie 4.0.**
Closing Date:	06-01-2018 at 2359h via email to oruiz@eafit.edu.co
Level:	Doctoral Study
Profile:	Applicant must document:

8. M.Sc. (Maestria Investigativa) in Mechanical Engineering / Mathematical Engineering / Physical Engineering / Computer Science.

9. Previous Journal and Conference publications on (1) shape optimization, (b) Modeling of Porous / Lattice Materials. Journal publications must be ISI / Scopus Indexed. Conference Publications must be by a Publisher which is H- indexed.

10. Research Interest: Applied Computational Geometry and Mechanics.

11. Programming Skills (Java, Python, MATLAB, C or C++)

12. Experience in Teaching or Student Academic Tutoring.

13. GPA of M.Sc. over 90%.

14. English Level C1 or higher. Also, all publications credited in this call must be published in English.

15. Documented Academic Distinctions or Scientifically Demanding Activities.

16. Documented Participation in International activities (i.e. outside Colombia), as follows: (a) Conference (with paper authoring), and (b) Internship (at least 6. Months, with products), and (c) Training Course.

All requisites of this call must be documented by attaching the Documents and their supporting Metadata (i.e. information which supports the existence of the submitted document).

Offer: (a) Tuition provided under category Loan (re - imbursement forfeited under conditions of academic excellence, indexed publications, timely termination, and others). (b) Living Expenses under category Assistantship are considered for especially competitive applicants (according to Profile). No Living Expenses are offered under category Loan.

Renewal of all financial aid categories is considered on a per-semester basis, according to student product evolution, evaluation of the student by Supervisors / Research Team, and resource availability in the supporting institutions.

Obligations:

h- ISI / Scopus Journal paper publications on the Subject of this call.

i- H-index documented Conference publication on Applied Computational Geometry.

j- Development of SW solutions, industrially applied, on the topic of the call or supporting technologies.

k- Write Funding Proposals, and conducting all collateral professional activities (execution of demos, event representation, lobby with government or private institutions, technology assimilation / transfer, motivational seminars for young student groups).

l- Impeccable relations and behavior with team, fellow students, supervisors, institutions, etc.

Contact: Prof. Dr. Ing. Oscar Ruiz

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www1.eafit.edu.co/cadcamcae

Notes:

Call	**Comp_Geometry-07-2014**
Closing Date:	21-07-2014 at 1800h **(CLOSED)**
Level:	M.Sc. Student
Profile Needed:	8. B.Sc. in Mechanical Engineering / Mathematical Engineering / Physical Engineering / Computer Science. 9. Honorary Courses or Honorary Mentions in Mathematics. 10. Research Interest: Applied Computational Geometry and Mechanics. 11. Programming Skills (Java, Python, MATLAB) 12. Experience in Teaching or Student Academic Tutoring. 13. GPA over 80%. 14. TOEFL over 75%. 15. Other Academic Distinctions or Scientifically Demanding Activities. 16. Participation in International Conference (at least, ACCEPTED).
Offer:	One-semester Tuition (1). Living Expenses Help will be considered for specially promising applicants.
Obligations:	m- ISI Journal paper publication on Applied Computational Geometry. n- ISI Conference publication on Applied Computational Geometry.
Contact:	Prof. Dr. Ing. Oscar Ruiz e-mail: oruiz@eafit.edu.co tel: +57-4- 261-9382 Universidad EAFIT. Campus Medellin, COLOMBIA
Notes:	(1). Renewable upon performance evaluation.

Call	**Comp_Geometry-02-2014**
Closing Date:	27-02-2014 **(CLOSED)**
Level:	M.Sc. Student
Profile Needed:	17. B.Sc. in Mechanical Engineering / Mathematical Engineering / Physical Engineering / Computer Science. 18. Honorary Courses or Honorary Mentions in Mathematics. 19. Honorary Courses or Honorary Mentions in Programming. 20. Research Interest: Applied Computational Geometry and Mechanics. 21. GPA over 85%. 22. TOEFL over 70%. 23. Other Academic Distinctions. 24. Participation in International Conference (at least, ACCEPTED).
Offer:	One-semester Tuition (1). Living Expenses Help will be considered for specially promising applicants.
Obligations:	o- ISI Journal paper publication on Applied Computational Geometry. p- ISI Conference publication on Applied Computational Geometry.
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Notes:	(1). Renewable upon performance evaluation.

Call	**eHealth-07-2013**
Closing Date:	21-06-2013 **(CLOSED)**
Level:	Ph.D. Student
Profile Needed:	1. Three (3) Scientific Articles published in Journal / Conference of Applied Computational Geometry, Robotics, Optimization for CAD CAM CAE. Cited by any of ISI, SCI, CiteSeer, CiteSeerX, Google Scholar, Compendex, Scopus, WorldCat, EBSCO, GALE, Science Direct or Thomson Reuters. 2. M.Sc. in Mechanical Engineering / Mechatronics / Applied Computational Geometry. 3. Working Experience in Research and Development Institutions outside Colombia. 4. Graduate Level Courses taken on: Optimization, Robotics, Computer Graphics, Computational Geometry and Programing. 5. Research Interest: Computation and Mechatronics Applied to e-Health. 6. Ready to Start Ph.D. Project. 7. English Level TOEFL 630/660 or above.
Offer:	One-semester Tuition (1).
Obligations:	q- ISI Journal paper publication on Computational Geometry, Mechatronics or Robotics on e-Health. r- ISI Conference publication on Computational Geometry, Mechatronics or Robotics on e-Health.
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Notes:	(1). Renewable upon performance evaluation.

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Call:	**Computational-Mechanics-06-2013**
Closing Date:	21-06-2013 **(CLOSED)**
Level:	Magister Student
Profile Needed:	1. Two (2) Scientific Articles published in Journal or International Conference of Applied Computational Geometry, Robotics, or Applied Mathematics for CAD CAM CAE. 2. M.Sc. Student in Mechanical Engineering or Applied Mathematics. 3. Working Experience in Research and Development of Computational Mechanics or Parallel Scientific Computing software. 4. Graduate Level Courses taken on: Numerical Analysis, Advanced Engineering Mathematics, Continuum Mechanics, Advanced Finite Element Analysis. 5. Research Interest: Computational Mechanics. 6. Participant or Winner of Colciencias Young Researcher (Joven Investigador) in the last 24 months. 7. English TOEFL 90/120 or above.
Offer:	1-semester Tuition (obs. 1).
Obligations:	a- ISI Journal paper publication on Computational Mechanics. b- ISI Conference publication on Computational Mechanics.
Contact:	Prof. Dr. Ing. Oscar Ruiz e-mail: oruiz@eafit.edu.co tel: +57-4- 261-9382 Universidad EAFIT. Campus Medellin, COLOMBIA
Notes:	(1). Renewable upon periodic performance evaluation and funding availability.

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Call:	**Mechanisms-01-2013**
Closing Date:	27-01-2013 **(CLOSED)**
Level:	Magister Student
Profile Needed:	1. One (1) Scientific Articles published in Journal / Conference of Applied Computational Geometry, Manipulators, or Applied Mathematics for CAD CAM CAE. 2. B.Sc. in Mechanical Engineering or Applied Mathematics. 3. Working Experience in Research and Development of Scientific Visualization software. 4. Undergraduate or Graduate Level Courses taken on: Numerical Analysis, Computational Geometry, Robotics, Mechanism Design, PC – Robot Interfaces, Mechatronics. 5. Research Interest: Mechatronics and Computational Mechanics. 6. Ready to Start M.Sc. Studies and Project in 01-2013. 7. Proof of Technical English Proficiency (e.g. official publications).
Offer:	Four-semester 50% Tuition (obs. 1).
Obligations:	c- ISI + Colciencias Journal paper publication on CAD CAM, CAE, Visualization, or similar field.
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Notes:	(1). Upon periodic performance evaluation and funding availability.

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Call:	**Computational-Mechanics-12-2012**
Closing Date:	06-12-2012 **(CLOSED)**
Level:	Magister Student
Profile Needed:	8. One (1) Scientific Articles published in Journal / Conference of Applied Computational Geometry, Robotics, or Applied Mathematics for CAD CAM CAE. 9. B.Sc. in Mechanical Engineering or Applied Mathematics. 10. Working Experience in Research and Development of Computational Mechanics or Parallel Scientific Computing software. 11. Undergraduate or Graduate Level Courses taken on: Numerical Analysis, Advanced Engineering Mathematics, Computational Geometry, Continuum Mechanics, Advanced Finite Element Analysis. 12. Research Interest: Computational Mechanics. 13. Ready to Start M.Sc. Studies and Project in 01-2013. 14. Participant or Winner of Colciencias Young Researcher (Joven Investigador) in the last 24 months. 15. English TOEFL 90/120 or above.
Offer:	4-semester Tuition (obs. 1).
Obligations:	d- ISI Journal paper publication on Computational Mechanics. e- ISI Conference publication on Computational Mechanics.
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Notes:	(1). Upon periodic performance evaluation and funding availability.

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Call:	**CAD-07-2012**
Closing Date:	20-07-2012 **(CLOSED)**
Level:	Magister Student
Profile Needed:	1. One (1) Scientific Article published in Journal / Conference of Applied Computational Geometry or Optimization for CAD CAM CAE. Cited by any of ISI, SCI, CiteSeer, CiteSeerX, Google Scholar, Compendex, Scopus, WorldCat, EBSCO, GALE, Science Direct or Thomson Reuters. 2. B.Sc. in Mechanical Engineering or Applied Mathematics. 3. Working Experience in Education or Research and Development Institutions outside EAFIT. 4. Graduate Level Courses taken on: Mathematics for CAD CAM, Computational Geometry, Compilers for CAD CAM, Optimization, Scientific Programming, Advanced Finite Element Analysis, Data Structures and Algorithms, Applied Advanced Mathematics. 5. Research Interest: Computational Geometry applied to CAD, CAM and Reverse Engineering. 6. Ready to Start Graduation Project. 7. English Melicet 60 pts or above.
Offer:	one-semester Tuition (1)
Obligations:	a- ISI Journal paper publication on “Optimized Reverse Engineering”. b- ISI Conference publication on “Optimized Reverse Engineering”.
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Notes:	(1). Upon periodic performance evaluation.

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Call:	**Computational-Mechanics-07-2012**
Closing Date:	20-07-2012 **(CLOSED)**
Level:	Magister Student
Profile Needed:	1. One (1) Scientific Articles published in Journal / Conference of Applied Computational Geometry, Robotics, Optimization for CAD CAM CAE. Cited by any of ISI, SCI, CiteSeer, CiteSeerX, Google Scholar, Compendex, Scopus, WorldCat, EBSCO, GALE, Science Direct or Thomson Reuters. 2. B.Sc. in Mechanical Engineering or Applied Mathematics. 3. Working Experience in Research and Development Institutions outside Colombia. 4. Graduate Level Courses taken on: Optimization, Numerical Analysis, Tensor Theory, Computational Modeling of Materials, Computational Geometry, Mixture Modeling, Continuum Mechanics, Plasticity, Parallel Scientific Computing, Comp. Fluid Dynamics, Advanced Finite Element Analysis. 5. Research Interest: Computational and Mechanistic Modeling of non-homogeneous materials. 6. Ready to Start Graduation Project. 7. English TOEFL 100/120 or above.
Offer:	Two-semester Tuition and partial Maintenance (1).
Obligations:	a- ISI Journal paper publication on Computational Mechanics. b- ISI Conference publication on Computational Mechanics.
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Notes:	(1). Upon periodic performance evaluation.

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Call	**eHealth-07-2012**
Closing Date:	20-07-2012 **(CLOSED)**
Level:	Magister Student
Profile Needed:	8. One (1) Scientific Article published in Journal / Conference of Applied Computational Geometry, Robotics, Optimization for CAD CAM CAE. Cited by any of ISI, SCI, CiteSeer, CiteSeerX, Google Scholar, Compendex, Scopus, WorldCat, EBSCO, GALE, Science Direct or Thomson Reuters. 9. B.Sc. in Mechanical Engineering and Mechatronics. 10. Working Experience in Research and Development Institutions outside Colombia. 11. Graduate Level Courses taken on: Optimization, Robotics, Computer Graphics, Computational Geometry, Programming. 12. Research Interest: Computation and Mechatronics Applied to e-Health. 13. Ready to Start Graduation Project. 14. English Level TOEFL 630/660 or above.
Offer:	Two-semester Tuition and partial Maintenance (1).
Obligations:	s- ISI Journal paper publication on Computational Geometry, Mechatronics or Robotics on e-Health. t- ISI Conference publication on Computational Geometry, Mechatronics or Robotics on e-Health.
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Notes:	(1). Upon periodic performance evaluation.

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