



Circ. n. 386/XVIII Sess.

CONSIGLIO NAZIONALE DEGLI INGEGNERI 12/06/2014 U-rsp/3610/2014



Ai Consigli degli Ordini degli Ingegneri LORO SEDI

Oggetto: Protocollo Intesa CNI – ISSNAF (Italian Scientists and Scholars in North America Foundation) – Borse di studio.

Cari Presidenti.

siamo lieti di comunicarVi che il Consiglio Nazionale, atteso il successo dello scorso anno, anche per il 2014 ha deliberato l'indizione di un concorso per l'assegnazione di 9 borse di studio dalla durata di due mesi, riservato agli iscritti agli Ordini nati dopo il 1979. Il periodo di studio si svolgerà presso prestigiosi Istituti/Università nordamericane.

Il concorso, promosso in collaborazione con l'Italian Scientists and Scholars in North America Foundation (ISSNAF), si svolgerà con le modalità simili a quelle dell'edizione 2013.

Per maggiori dettagli rinviamo alla lettura del bando allegato, che si invita a portare urgentemente a conoscenza degli iscritti.

Cordiali saluti

IL CONSIGLIERE SEGRETARIO (Ing. Riccardo Pellegatta)

IL PRESIDENTE (Ing. Armando)Zambrano)

via IV Novembre, 114 00187 Roma, Italy tel. +39 06 6976701 segreteria@cni-online.it segreteria@ingpec.eu www.tuttoingegnere.it

Borse di Studio in Nord America per Giovani Ingegneri Bando 2014

Il Consiglio Nazionale Ingegneri e gli Ordini Provinciali, d'intesa con la Fondazione ISSNAF - Italian Scientists and Scholars in North America Foundation, invitano i giovani ingegneri italiani iscritti all'Ordine a presentare domanda per l'assegnazione di 9 (nove) borse di studio di formazione e aggiornamento in Nord America.

Il programma, alla seconda edizione, si inserisce nell'ambito del Protocollo d'Intesa ISSNAF - CNI stipulato nel 2013 ed ha l'obiettivo di facilitare il contatto e l'interazione tra gli ingegneri italiani e il mondo della ricerca, dell'industria e delle professioni del Nord-America al fine di creare opportunità formative e di sviluppo professionale.

Il bando e' aperto a tutti gli ingegneri italiani nati dopo il 1° gennaio 1979 che sono iscritti all'Ordine, abbiano una ottima conoscenza della lingua inglese e rispondano ai requisiti specifici richiesti dal centro di destinazione.

Ciascuna borsa include assicurazione medica per la durata della borsa, viaggio aereo (Italia/centro di destinazione), costi d'iscrizione/corso, e l'alloggio. Tutti i costi saranno coperti dagli organizzatori. Per quanto riguarda l'alloggio a discrezione di ISSNAF questo potrà essere assicurato in uno dei seguenti modi: messa a disposizione di un alloggio per il periodo di permanenza negli USA o in alternativa un contributo pari a \$4,000 erogato direttamente al vincitore. Rimangono a carico del borsista tutti gli altri costi e rimane a carico del borsista procurarsi i visti richiesti di caso in caso.

Le borse hanno una durata di 8 settimane ad eccezione delle borse Mind The Bridge che hanno una durata di 3 settimane. Le date di svolgimento delle borse, che dovranno comunque avere inizio entro il 31 dicembre 2014, verranno decise di comune accordo tra il borsista e il centro di destinazione dopo la selezione.

Per la lista dei centri di destinazione e' allegata al presente bando ed e' inoltre consultabile online alla pagina www.issnaf.org/internships.html

Il numero di borse assegnate potrà essere aumentato sulla base di nuove disponibilità economiche individuate anche grazie alla collaborazione con aziende e Ordini Provinciali.

Modalità di partecipazione e selezione

- Ogni candidato dovra' compilare la domanda di partecipazione esclusivamente online a <u>www.issnaf.org/cni-issnaf-internships-2014-application-form.html</u> secondo il formulario allegato al presente bando
- Domande inviate via email o via posta non saranno accettate
- Ogni candidato può inoltrare domanda per un massimo di tre centri

- Le candidature valide verranno esaminate dai tutor di destinazione i quali individueranno una rosa di finalisti. I tutor baseranno la propria decisione sulle domande d'ammissione e potranno contattare i candidati per un'intervista telefonica o via Skype.
- La valutazione dei tutor e' indipendente ed insindacabile
- Dalla rosa di finalisti ricevuta dai tutor, la commissione congiunta CNI-ISSNAF selezionerà i vincitori delle borse, al fine di garantire pari opportunita' ed equa distribuzione geografica delle borse
- Le decisioni della commissione CNI-ISSNAF sono definitive
- La commissione CNI-ISSNAF si riserva di verificare la veridicita' delle informazioni contenute nelle domande d'ammissione.

Termini

- Le domande vanno presentate entro e non oltre il 8 luglio 2014
- I nomi dei vincitori saranno pubblicati entro il 25 Luglio 2014

Per maggiori informazioni sul bando <u>info@issnaf.org</u>
Per maggiori informazioni sul Consiglio Nazionale degli Ingegneri <u>www.tuttoingegnere.it</u>
Per maggiori informazioni su ISSNAF <u>www.issnaf.org</u>

Centro di destinazione	Tutor	Attivita internship	Location	Requisiti richiesti	Web Page
Fermilab - Computing Division	Gabriele Garzoglio	Development of advanced distributed GRID/CLOUD computing,	Batavia, IL	computing engineer	
Fermilab - Computing Division	Gustavo Cancelo	Development of low-noise electronics for astrophysics experiments	Batavia, IL	Electronic Engineer, knowledge of analog and digital hardware (low noise, high speed, RF, etc.). Software: LINUX, C++, Matlab, Root. Firmware: VHDL, XILINX, System Generator, Simulink	
Fermilab - Scientific Data Processing Department of the Computing Division.	Marc Mengel	Creating and integrating new methods for accessing and delivering large data sets for distributed physics analysis.	Batavia, IL	computing engineer, with some knowledge about "Big Data", the Open Science Grid, grid computing, and the tools which are used to address these problems.	
Fermilab - Scientific Data Processing Department of the Computing Division.	Dave Mason	Work in the team of software professionals of the Fermilab Computing Center of the CMS experiment at the LHC of CERN, to develop distributed monitoring of on-going data analysis in the world-wide grid and to improve the processing infrastructures of the Center.	Batavia, IL	computing engineer, knowledge of Linux OS and python and other scripting languages. Knowledge of GRID, cloud or other distributed computing systems and their computer science backgrounds is a plus.	
Fermilab - Magnet System Department of the Technical Division	Emanuela Barzi	Development of strain-resistant Nb3Sn superconducting strand and cables for applications in high field magnets, and electro-mechanical modeling of composite and anisotropic materials in the plastic regime,	Batavia, IL	Mechanical Engineer. Experience with ANSYS or other Finite Element Analysis software, Aptitude to analytical calculations.	
Fermilab - Experimental Beam Physics Department of the Accelerator Physics Center	Philippe Piot	Construction and commissioning of a Titanium-sapphire multi-pass amplifier of a laser source, for studies of laser-induced particle beams acceleration,	Batavia, IL	Photonics-engineering or/and Electrical- engineering with some (especially "hands-on") knowledge of ultra-fast laser systems.	
Fermilab - Muon Accelerator Department of the Accelerator Physics Center	Katsuya Yonehara	Design of a gas-filled RF cavity for large- acceptance muon beam ionization cooling,	Batavia, IL	electrical or electronic engineer	
Fermilab - Detector Development and Fabrication n Department of the Particle Physics Division	Anna Pla- Dalmau	Development and production of materials for applications in improved scintillation detection,	Batavia, IL	chemical or materials engineer	
Fermilab - Electrical Engineering Department of the Particle Physics Division	Paul Rubinov	Development of an increased sensitivity photodetector for an optimized veto of cosmic ray muons for the Mu2e experiment,	Batavia, IL	electronic engineer	
Fermilab - Electrical Engineering Department of the Particle Physics division	Grzegorz Deptuch	Tests of three-dimensional integrated circuits bonded to pixelated sensors,	Batavia, IL	electronic engineer	
Fermilab - Mu2e Group, Particle Physics Division	Matteo Martini	Development of the mechanical structure for the calorimeter of the Mu2e experiment,	Batavia, IL	mechanical engineer	
Fermilab - Mu2e Group, Particle Physics Division	Fabio Happacher	Development of the front-end electronics for the calorimeter of the Mu2e experiment,	Batavia, IL	electronic engineer	

Fermilab - LBNE Department of the Particle Physics Division	Tracy Lundin	Design and construction of facilities and equipment to support the LBNE neutrino experiment	Batavia, IL	with work experience in civil engineering in an emphasis on hard rock engineering; geosynthetic membranes; massive concrete pours; complex construction scheduling. Experience with AutoCAD or Vulcan is desired. This candidate must have an experience level to be able to work independently to develop workable solutions. Both June-July and October-November would work.	
Schlumberger - Houston Microseismic Surface Monitoring	Paolo Primiero	Data transmission protocols / and data management to be applied to remote systems with high data rate; Instrument calibration / evaluation of new sensing technologies for seismic monitoring; Development of high performance computing for microseismic processing	Houston, TX	electrical / telecommunication / informatics / earth science	www.slb.com/services/ completions/stimulatio n/microseismic.aspx
Schlumberger - Houston Microseismic Surface Monitoring	Paolo Primiero	Instrument calibration / evaluation of new sensing technologies for seismic monitoring	Houston, TX	Electrical, telecommunication, informatics , earth science Engineering Preferred skills: Knowledge of python or java scripting, KML and google earth API - Knowledge of analogue electronics - Knowledge of mpi or experience in programming for HPC	www.slb.com/services/ completions/stimulatio n/microseismic.aspx
Schlumberger - Houston Microseismic Surface Monitoring	Paolo Primiero	Development of high performance computing for microseismic processing	Houston, TX	electrical / telecommunication / informatics / earth science	www.slb.com/services/ completions/stimulatio n/microseismic.aspx
University of Illinois at Chicago Department of Electrical and Computer Engineering Andrew Electromagnetics Laboratory	Danilo Erricolo	Radio Frequency (RF) Tomography in terms of both experiments and development of algorithms for inverse imaging	Chicago, IL	Electrical Engineer with background in electromagnetic fields - interested in pursuing a sponsored PhD degree in Radio Frequency Tomography	http://www.ece.uic.edu /bin/view/ECE/ProfileEr ricolo
Trojan Technologies and Western University	Domenico Santoro	pilot and lab activities with the objective of characterizing the performance of new water treatment technologies	London, Ontario	chemical or civil or envirionmental engineering with focus on water treatment	http://www.trojantech nologies.com/#!
UCLA - Department of Computer Engineering - Network Research Lab	Mario Gerla	Mobile applications for smart phones and vehicles	Los Angeles	computer engineer	http://nrlweb.cs.ucla.ed
Mind the Bridge Start-up school			San Francisco		http://school.mindtheb ridge.org/
Mind the Bridge Start-up school			San Francisco	are fluent in English (min TOELF 100/120) can demonstrate an interest in	http://school.mindtheb ridge.org/
Mind the Bridge Start-up school			San Francisco	entrepreneurship and innovation optional (highly recommended): are working on a startup project	http://school.mindtheb ridge.org/
Mind the Bridge Start-up school			San Francisco		http://school.mindtheb

University of Utah - School of Computing - Center for Extreme Data Management, Analysis and Visualization	Valerio Pascucci	analysis of large scale scientific data and high performance computing problems	Salt Lake City	computer engineer	www.cedmav.com
INRS—EMT, Univ. du Québec The Nano(meter)- Femto(second) Lab	Federico Rosei	Nanostructured Materials, Surface Science, Organic Electronics, Nanoelectronic	Montreal, Quebec	ingegneria elettronica, dispositivi fotonici, ingegneria dei materiali	http://nanofemtolab.qc .ca/
INRS–EMT, Univ. du Québec Ultrafast Optical Processing Group	Roberto Morandotti	experimental and theoretical research in optical communications, ultrahigh-speed optical systems, fiber grating technology, integrated waveguides, optical solitons, ultrafast metrology and biophotonics	Montreal, Quebec		http://nlo.uop.ca/
Rehabilitation Institute of Chicago Northwestern University - Robotics Laboratory	Sandro Mussa Ivaldi	A body-machine interface for severely paralyzed survivors of spinal cord injury to control wheelchairs, Feinberg School of Medicine computer and other devices	Chicago, IL	Background in computer engineering, programming and possibly in biomedical instrumentation	www.smpp.northweste rn.edu/research/roboti cs/index.html
Rehabilitation Institute of Chicago Northwestern University - Robotics Laboratory	James Patton	Virtual reality for neurorehabilitation after stroke and traumatic brain injury	Chicago, IL	Background in computer engineering, programming and possibly in biomedical instrumentation	www.smpp.northweste rn.edu/research/roboti cs/index.html
Rehabilitation Institute of Chicago Northwestern University - Neuromuscular Control and Plasticity Laboratory	Eric Perreault	Robot control and system identification for the study of human leg mechanics	Chicago, IL	computer programming (C++, Matlab), signal processing, robotics	www.ric.org/research/c enters/smpp/labs/neur omuscular
Rehabilitation Institute of Chicago Northwestern University - Neuromuscular Control and Plasticity Laboratory	Eric Perreault	Robot control and system identification for the study of human leg mechanics	Chicago, IL	computer programming (C++, Matlab), signal processing, robotics	www.ric.org/research/c enters/smpp/labs/neur omuscular
Rehabilitation Institute of Chicago Northwestern University - Reflex, Movement and Spasticity Laboratory	Mehdi Mirbagheri	Developing advanced engineering techniques and tools for diagnostic and therapeutic purposes, in the field of motor impairment and neuro-rehabilitation (software and/or hardware)	Chicago, IL	Computer Engineering, or Biomedical, Electrical or Mechanical Engineering	http://smpp.northwest ern.edu/research/rms/i ndex.html
Rehabilitation Institute of Chicago Northwestern University - Neuromechanics Laboratory	Yasin Dhaher	Design in clinic instruments (pelvic floor pain) and OR instruments (sensing technologies) for the quantification of clinical assessments and surgical design parameters. Develop a more task specific testing rig for orthopaedic implants, mainly the human knee	Chicago, IL	electronic/mechatronic engineer and or mechanical engineer with extensive SolidWorks/CAD design expertise	www.ric.org/research/c enters/smpp/labs/nil/

Rehabilitation Institute of Chicago Northwestern University - Neuromechanics Laboratory	Yasin Dhaher	Design in clinic instruments (pelvic floor pain) and OR instruments (sensing technologies) for the quantification of clinical assessments and surgical design parameters. Develop a more task specific testing rig for orthopaedic implants, mainly the human knee	Chicago, IL	electronic/mechatronic engineer and or mechanical engineer with extensive SolidWorks/CAD design expertise	www.ric.org/research/c enters/smpp/labs/nil/
MIT - Mobile Experience Lab	Federico Casalegno	The Mobile Experience Lab uses personal mobile devices to unlock potential in the world around us. Projects are to be determined.	Boston	Current affiliation with a University	http://mobile.mit.edu/people/federico/
University of Southern California Department of Biomedical Engineering	Natasha Lepore	studying functional and anatomical connectivity in children with sickle cell anemia / method development for structural MRI analysis of premature brain development. However, we also have several other projects depending on the intern's interests.	Los Angeles	Engineering, physics or other equivalent degree. Experience with medical imaging preferable. Matlab or C/C++ or other programming experience	http://natashalepore.or
University of Southern California Information Science Institute	Aram Galtyan	Using information-theoretic and machine learning approaches for characterizing sociolinguistic processes in multilingual text; e.g., study how "influence" spreads across language boundaries in social media and blogosphere	Los Angeles	PhD in CS, with NLP experience	http://isi.edu/~galstyan /index.html
University of Southern California Information Science Institute	Aram Galtyan	Asymptotic analysis of estimation methods in probabilistic graphical models to apply tools from statistical physics to analyze various estimation procedures (such as Maximum a Posteriori Estimation) in the context of various graphical models	Los Angeles	PhD in Physics or CS, familiarity with methods in statistical physics	http://isi.edu/~galstyan /index.html
Children Hospital Los Angeles Wood Lab	John Wood	Image registration, motion correction, segmentation, and parameterization in a study of changes in Blood Oxygen Level Dependent (BOLD) images in response to controlled hypoxia and hyperoxia in patients with sickle cell anemia	Los Angeles	Familiarity with image handling and programming skills	http://www- hsc.usc.edu/~jwood/
Children Hospital Los Angeles Wood Lab	John Wood	Port the MATLAB code of a Monte Carlo model of iron-mediated MRI relaxation to a more robust, fast, and generalizable multiprocessor environment, taking advantage of available open source solutions	Los Angeles	programming skills and experience with multiprocessor environments. Basic experience with principles of MRI preferred	http://www- hsc.usc.edu/~iwood/
Department of Medical Physics Cross Cancer Institute and University of Alberta	Gino Fallone / Nicola De Zanche	radiation therapy guided by magnetic resonance imaging: optimization of magnetic fields and electronic controls	Edmonton, Alberta	electrical or electronics engineering; experience with simulation, measurement and optimization of static and low-frequency magnetic fields; OR digital electronic control software and hardware interfaces	www.linac-mr.ca
University of California, Riverside Mechanical Engineering	Elisa Franco	Characterization of DNA self assembly in nanoscale droplets or vesicles	Riverside, CA	Laurea specialistica in biochemistry/biology/nanotechnology.	http://www.engr.ucr.ed u/~efranco/Research.ht ml
Medical Device Development Facility at USC	Gerald E Loeb	This project is a collaboration with SynTouch LLC, a spin-off company from our lab that manufactures and sells tactile sensing technology originally developed in MDDF. We are now working on tactile display technology that can provide a human operator with awareness of the tactile information detected at a distance, such as in a telerobot used for minimally invasive surgery	Los Angeles	experience with mechatronic design and psychophysical research, and familiarity with the neuroscience of tactile perception	http://mddf.usc.edu/

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Department of Engineering USC	Paul Bogdan	modeling, optimization, and control of cyber-physical systems with emphasis on embedded and biological applications	Los Angeles	solid background in electrical and/or computer engineering, computer science, or another relevant field (e.g., physics, applied mathematics, systems/computational biology), excellent analytical and communication skills, experience with C/C++/Matlab software development. Prior experience with complex system and network modeling, or FPGAs/GPUs will provide an added advantage	http://ee.usc.edu/facult y staff/faculty director y/bogdan.htm
Department of Engineering USC	Paul Bogdan	modeling, optimization, and control of cyber-physical systems with emphasis on embedded and biological applications	Los Angeles	solid background in electrical and/or computer engineering, computer science, or another relevant field (e.g., physics, applied mathematics, systems/computational biology), excellent analytical and communication skills, experience with C/C++/Matlab software development. Prior experience with complex system and network modeling, or FPGAs/GPUs will provide an added advantage	http://ee.usc.edu/facult y staff/faculty director y/bogdan.htm
Department of Engineering USC	Paul Bogdan	modeling, optimization, and control of cyber-physical systems with emphasis on embedded and biological applications	Los Angeles	solid background in electrical and/or computer engineering, computer science, or another relevant field (e.g., physics, applied mathematics, systems/computational biology), excellent analytical and communication skills, experience with C/C++/Matlab software development. Prior experience with complex system and network modeling, or FPGAs/GPUs will provide an added advantage	http://ee.usc.edu/facult y staff/faculty director y/bogdan.htm
Lawrence Berkeley National Laboratory Joint Center for Artificial Photosynthesis	Francesca Maria Toma	the intern will integrate catalyst on photoanodes for water oxidation, and fabricate device for autonomous water splitting, and/or characterize by means of photoconductive and in operando atomic force microscopy the performance and the topological modifications of the materials. Also, I'm starting a more bio-oriented project that involves the synthesis and characterization of man-made protein maquettes that mimic the natural photosynthesis complexes, and are based on peptoids. This last project will be pursued in collaboration with the Biological Facility at the Molecular Foundry	Berkeley	Chemical Engineering	http://solarfuelshub.org
UCSD - Center of Interdisciplinary Science for Art, Architecture and Archaeology	Maurizio Seracini	da definire	San Diego	da definire	http://cisa3.calit2.net/

CANDIDATE'S GENERAL INFORM	MATION			
First Name	Last Name			
Year of Birth Please Select ▼	Gender M ○ / F ○			
Passport Number Expiry date		Ordine Prov. Ingegneri di Please Select ▼		Numero
Email	Phone number		Skype	
CANDIDATE DACKODOLIND O	DDOLLCCTONAL BILODMATION			
CANDIDATES BACKGROUND &				
English Proficiency - European Le	vel Self-Assessment		OR	English Proficiency - TOEFL
Understanding Please Select ▼	Speaking Please Select ▼	Reading Please Select ▼		Score Please Select ▼
Please upload full CV (PDF for	Scegli file Nessun file selezionato			
Name of Current Employer Employer's Address		Position		
ABOUT THE INTERNSHIP				
Please select the internship v	ou are applying for (up to thre	ee)		
	ocation / Tutor's Name - (Choos		ent)	T
Activity: For the full list of host Institutions	please click here			
Requirements		Please confirm you have	these	e requirements
Second Choice - Destination /	Location / Tutor's Name - (Ch	oose to see specific activity if p	resent)

Requirements						
	Please confirm you have these requirements Yes / No /					
Third Choice - Destination / Location / Tutor's Name - (Choose Please select	e to see specific activity if present)					
Activity:						
For the full list of host Institutions <u>please click here</u>						
Requirements	Please confirm you have these requirements Yes / No /					
Please explain why you believe your experience and backgro (max 400 words - English)	Please explain why you believe your experience and background would be a good fit for the center you are applying to (max 400 words - English)					
In case you are applying for the Mind The Bridge Start-up Sc 400 words – English)	hool, please describe the project you intend to present (max					
Please confirm you are aware and accept the following condi	tions					
 The internship will cover travel expenses to/from Italy and the internship, internship tuition, accommodation up to the amount Yes / No / 						
 All other costs such as food, local transportation, visa, etc must be covered by the intern Yes / No / 						
3. The intern is responsible for all visa procedures required by US and Canada Immigration authorities (ESTABuisiness / business visitors). In case a J1 visa is required by the host institution, the intern shall handle all procedures for obtaining the visa before departure Yes / No						
4. The final dates of the internship will be discussed with the interns and confirmed by the tutor and ISSNAF after the internship is awarded Yes O / No O						