

Department of Civil and Environmental Engineering
Masters Student Service Projects
Fall, 2009

POSITIONS AVAILABLE	PROJECT	TASKS	CONTACT NAME	EMAIL
WEB BASED				
one	CEE History Webpage	Design and produce an updated and more visually interesting version of our CEE history on the CEE website	Garrett	garrett@andrew.cmu.edu
one	Green Design Apprenticeship Support	Update and maintain Green Design Apprenticeship website	Matthews, D.	dh5x@andrew.cmu.edu
one	CEE-GSA Webpage	Update and maintain the CEE-GSA Student Webpage	Berges/Oberoi	svo@andrew.cmu.edu / marioberges@cmu.edu
one	Faculty Website Update	Maintain, Update, Integrate Faculty Web sites	Rooney	francioni@cmu.edu
one	Virtual Tour Website Update	Update the CEE virtual tour pages with oversight from Andrea Rooney	Rooney	francioni@cmu.edu
one	Misc. Website Update	Work on updating certain section of the CEE website with oversight from Andrea Rooney	Rooney	francioni@cmu.edu
DATABASE DEVELOPMENT				
one	Database Creation	Creating a database of papers/publication and a searchable web interface to the database	Akinci	bakinci@cmu.edu
one	Database Creation	Creation of a database for a construction project based on the available information/documents/etc that the research team has.	Akinci	bakinci@cmu.edu
one	CSE List creation for web publishing	Assemble a list of educational resources and tools addressing Life Cycle Assessment, Material Flow Analysis, Regional and Global Mass and Energy Balances, and other topics related to the emerging discipline of Sustainable Engineering for inclusion on the website of the Center for Sustainable Engineering	Davidson and Matthews, S.	cliff@andrew.cmu.edu & hsm@cmu.edu
1-2	Create End Note Database files	Create End Note database files for reference and citation managing using the new web-based importing tools found in end Note	Gregory and Lowry	kgregory@andrew.cmu.edu
1-2	Digital file conversion	Link archived pdf files in VanBriesen database	VanBriesen	jeanne@andrew.cmu.edu
RESEARCH ORIENTED				
various	Data Collection	Data collection: We are looking for help in data collection that involves WLAN, RFID and other technologies (Ultra Wide band, Inertial Sensors and Ultra sonic). There will be multiple data collections at the same location using different technologies on different days. This is going to be done in support of a research on indoor localization.	Akinci	bakinci@cmu.edu

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various	Research assistance	Testing, evaluating, installing, writing help materials for a variety of construction project management related software systems.	Akinci	bakinci@cmu.edu
various	BIM modeling	We are looking for help in creating building information models (BIM) or 3D models for a variety of buildings (e.g., academic, public service, hospital, etc.) The modeling involves mostly exterior enclosure and HVAC systems of these buildings.	Akinci	bakinci@cmu.edu
2 per semester	Research on the Hamerschlag Hall Green Roof	This project involves research on environmental performance of the Hamerschlag Hall Green Roof compared to that of the adjacent Porter Hall Control Roof. Students will use existing equipment to collect data and then will analyze data to determine temperature gradients within the layers of roof material, heat flow through the roofs, water retention by and runoff from the roofs, and related parameters. The results will be used to quantify the benefits of a green roof.	Davidson and Dzombak	cliff@andrew.cmu.edu dzombak@andrew.cmu.edu
one	Green Practices Committee Assistance	Assist the Green Practices Committee with collecting metrics to be published online and in the CMU Factbook	Matthews	hsm@cmu.edu

COURSE ASSISTANCE				
one	Videotape and Upload 12-611/711	Videotape 4 lectures and upload to blackboard. Students registered for class preferred	Akinci	bakinci@andrew.cmu.edu
one	Grader for 12-232	Grade 6 sets of Solid Mechanics Lab Reports (30 hours) in the Spring 2010 semester	Cartwright	lc23@andrew.cmu.edu
one	Video and Editing	Record lecture and lab portions of 12-358 (mini 2 Spring 2010 semester)	Cartwright	lc23@andrew.cmu.edu
1-2	Teaching Assistant Support	Set-up, monitor and clean-up lab portions of 12-100 (10 hours per semester - total = 20 hours)	Cartwright	lc23@andrew.cmu.edu
TBD	Sustainability Course Sequence	Developing example problems and case studies for the classes 12-712, 12-713, or 12-715. Involves researching the literature for a specific topic and then summarizing these articles and even provide some quantitative examples. Students enrolled in the class may work on a project for one of the later or earlier classes (30 hours) - EESM background preferred	Davidson	cliff@andrew.cmu.edu
one	Typesetting	Typesetting the class notes for 12-769 Continuum Mechanics of Materials in Latex	Dayal	kaushik@cmu.edu

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one	Course 12-301	Assist as TA for course 12-301 (CEE Projects). Student will make CDs from the tapes of student presentations.	Finger	sfinger@andrew.cmu.edu
3 at 30 hrs. each	Fluids Lab	The program involves conducting two fluid mechanics labs for the course 12-356. Each lab will require about 10 hours to conduct sessions for multiple groups and about 5 hours to grade the technical correctness of the reports. The lab instructor will do the final grading. The grad student will require an hour of equipment instruction per lab. CEE@CMU alums are preferred as they would have had these labs during their undergraduate experience.	Gregory	kgregory@andrew.cmu.edu
various	Teaching Assistant Support	Serve as an additional TA for a highly populated course	See below	
1-2	12-611/711 Project Management for Construction	Assist as a TA or Grader. Course registration is not permitted	Akinci	bakinci@andrew.cmu.edu
one	Course 12-712 - Sustainability	Assist as a TA or Grader. Course registration is not permitted	Davidson	cliff@andrew.cmu.edu
one	Course 12-727 - Environmental Sampling and Systems	Assist as a TA or Grader. Course registration is not permitted	Lowry	glowry@andrew.cmu.edu

MISCELLANEOUS

various	Research Video creation	Creation of research videos that can be understood by interested students and general public.	Akinci	bakinci@cmu.edu
3	CEE Outings Coordination	Assist Gloria Dadowski in organizing one of the three department events (canoe trip, ski trip and ballgame)	Dadowski	dadowski@andrew.cmu.edu
two (over 2 semesters)	Assistance faculty in ABET course documentation	Work with faculty to collect and upload course documentation for ABET	Finger	sfinger@andrew.cmu.edu
various	Student Defined	Propose something that you feel that will in a cost-efficient manner improve the department in some way (making sure to explain those benefits clearly) and then design and implement that proposal. The proposal must be pre-approved by the CEE department head before proceeding	Garrett	garrett@andrew.cmu.edu
one	Historical Poster	Design and produce a poster to document the history of CEE	Garrett	garrett@andrew.cmu.edu
two (one per semester)	Videotape Graduate Student Seminars	Set-up and videotape graduate student seminars and then organize these videotapes on CEE website	Garrett and Rooney	garrett@andrew.cmu.edu

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2-3 per program day needed	Assistant to Green Design Apprenticeship Program	Assist with the apprenticeship program for high school students up to 6 days over the course of the year. Includes scheduling meetings and facilitating activities during the days students are on campus (approx 8-12 hrs. per day of the program) - EESM students with interests in sustainability preferred	Matthews, D.	dh5x@andrew.cmu.edu
one	Photograph Archival	Scan and archive photographs	Mobley	mmobley@andrew.cmu.edu
various	Newsletter Contributor	Help write articles for the CEE Newsletter	Rooney	francioni@cmu.edu