

Application Form for Empirical, Experimental, or Theoretical Research

UROP Team Grant

The Undergraduate Research Opportunities Program offers up to \$3000 per project, not to exceed \$1200/student, for teams of 2 undergraduates or more who collaborate with faculty on research or creative work. These grants also provide support for course-related or capstone projects, up to \$1000 per project, not to exceed \$250 per student. Projects may be of faculty or student design, but in all cases students must function as researchers or co-researchers with responsibilities that would exceed those of a student assistant.

If you have questions, please visit our website: www.colorado.edu/Research/UROP/studgrants.htm

Faculty Sponsor				Rank	Department		
Zoya Popovic				Distinguished Professor	ECEE		
Campus Box Number Department of Electrical & Computer Engineering Campus Box 425	Telephone Number			CU Email Address			
	(303) 492-0374		zoya.Popovic@colorado.edu				
The attached proposal was written by:		Number of Students D		ates student participation will begin and end			
$Student(s) \square$		5	8/2	26/14 - 5/8/15			
Project Title Wireless Capacitive EV Charging							
How much are you requesting from UROF 1530.64							

Please attach an abstract of the project and a proposal using no more than five double-spaced pages (see Narrative Proposal Section). Include in your proposal:

- Describe the roles the students will play on the project
- If this is not a student-designed project, discuss opportunities for students to co-author published works
- Include a detailed budget justifying student stipend requests and/or an expense allowance

If the team sponsor is not a tenure-track faculty member, a copy of the sponsor's curriculum vitae should also be included. If the undergraduate members of the team have been selected, please complete the back of this form; otherwise submit student names after they've been selected.

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Faculty Sponsor's Signature:		 	Date:	10/2/2014

200 Par

Student Team Members

1. Name:	Student ID Number:
3. Address:	
4: Telephone Number(s):	5. Major:
6. CU Email Address:	7. Graduation Date:
1. Name:	Student ID Number:
3. Address:	
4: Telephone Number(s):	5. Major:
6. CU Email Address:	7. Graduation Date:
1. Name:	Student ID Number:
3. Address:	
4: Telephone Number(s):	5. Major:
6. CU Email Address:	7. Graduation Date:
1. Name:	Student ID Number:
3. Address:	
4: Telephone Number(s):	5. Major:
6. CU Email Address:	7. Graduation Date:
1. Name:	Student ID Number:
	5. Major:
6. CU Email Address:	7. Graduation Date:

UROP Budget Requisition--UROP will fund up to \$2400 for a 2 person team and \$3000 for teams of 3 or more students total per project during the academic or summer.

Stipend		
Please list below the phases of your project, and the number of hours to be spent on each phase. For the total but hours by \$9.00.	dget multipl	y those
Project Phase/Description of Activity		Hours
Tota	ls Hours	
Total Stipend (Multiply total hours by	\$9.00.)	
Expense Allowance Itemize your expenses, including equipment, supplies, computer services, library or laboratory fees, copy costs, trong sources for estimates.	avel expense	es, etc.
Expense Item	Estimate	d Cost
Total Cost		
Stipend Requested: \$Expense Allowance Requested: \$Total Budget Requested:	uested: \$_	

Narrative Proposal Section

Attach a narrative proposal, 5 pages maximum, outlining your request for funding. Please attempt to write the proposal in terms a non-expert can understand, though you may have to use technical language in some places as well. The narrative should include:

- 1. **Introduction:** State your research question. Tell us the objectives and purpose of both your portion of the work and those of the larger project within which yours is embedded if applicable, including its purpose and function within the students' degree requirements or academic or professional training or goals. Discuss the location of the research (laboratory or work site) and who will supervise students if not the faculty sponsor. Address the project's relevance and who will benefit from it. Supply justification for any off-site research.
- 2. **Background:** Situate this project with other research in the field by providing a review of the work that has already been done in this area. Discuss what theoretical tradition(s) you are drawing from that influence your approach to this project. If conducting community-based, action research situate the project in the known academic or community/international development literature relevant to your approach for this project. The students' own research experiences and how they have fulfilled the necessary background work for attempting this project should be included, as well as a discussion of the faculty sponsor's expertise.
- 3. **Methods:** Provide a detailed description of the research or design methods that will be used in the project. This should include justification for the specific approach or methods that will be employed. If applicable, discuss whether you'll be working with primary or secondary sources (or both) and/or what data will be the basis for your project. If you're using human subjects you should address how you'll find subjects, your methods for approaching them and gaining trust, how you'll deal with language or other barriers, how you plan to get Institutional Review Board (IRB) approval for the research protocol, and so on. If conducting community-based, participatory action research, describe the collective approach of your methods: how community/local participants will be engaged in the research, how results of the research will be published or disseminated to community/local stakeholders, how results of your collaboration with the community will be implemented in practice (or praxis), and in what forms you plan to document project outcomes for those interested in your field or the project's subject matter.
- 4. **Time Schedule:** Provide a step-by-step outline of the project including dates for the initiation and completion of each phase. Attempt to lay out a reasonable schedule taking into consideration all stages of the research as well as writing of the final report. Include how often you'll meet with your faculty sponsor.
- 5. Budget Justification: Explain how you will use the funds you have requested on your Budget Requisition.

Reference Section: Attach an alphabetical list of all work you've consulted in your background research and cited in the body of your narrative, in appropriate professional style customary for your discipline. Your bibliography should show that you've done the necessary preparation for this project.

Appendices: Attach any surveys or interviews you'll use in the research, permission for Human Subject Research, etc.

Abstract of the project

On a separate page (not included in the 5-page maximum narrative) provide a 100-word description of the research project, including its objectives or the objectives of the larger project within which yours is embedded.