



REQUIRED Cover Page

APPLICATION FOR PROFESSIONAL DEVELOPMENT GRANT

**All applicants please complete this cover page.

| | |
|---|--|
| Choose one: <input type="checkbox"/> Creative activity <input type="checkbox"/> Research activity <input checked="" type="checkbox"/> Professional Enhancement activity | Date of Last PDG Award (Semester and Year awarded): <u>none</u> Date of ATU Faculty Appointment (Semester and Year): <u>Fall 1998</u> |
|---|--|

1. Project Title: Taking part in National Conference on Educational Robotics, Botball contest

2. Name of Principal Investigator/Project Director: David Middleton

3. School (abbrev): Sys. Sci 4. Department: Computer and Information Science

5. Campus Mail Address: 201C Corley Bldg 6. PI/PD Campus Phone: 968 0628

7. Amount Requested: \$ 2710 8. Total Cost of Project: \$ 2710

9. Does this project involve:

10. Duration of Project: July 8-16 2007

Yes No

- ☐ ☒ human subjects?
- ☐ ☒ animals/animal care facility?
- ☐ ☒ radioactive materials?
- ☐ ☒ hazardous materials?
- ☐ ☒ biological agents or toxins restricted by the USA Patriot Act?
- ☐ ☒ copyright or patent potential?
- ☐ ☒ utilization of space **not** currently available to the PI/PD?
- ☐ ☒ the purchase of equipment/instrumentation/software currently **available** to the PI/PD?

NOTE: If the answer is "yes" to any of the above questions, the investigator must attach appropriate documentation of approval or justification for use/purchase.

SIGNATURES

Gary Morell 4/25/07
Department Head Date

John White 4/25/07
Dean Date

This Section to be completed by the Office of Academic Affairs

PDC Committee Award Recommendation: Yes ___ No ___
PDC Committee Proposal Rank: ___ of ___ Total Proposals.
Recommendation of VPAA: Yes ___ No ___
Recommendation of President: Yes ___ No ___
Award Date: _____

Participation in the National Conference on Educational Robotics, and International Botball Tournament

Abstract

Funds are requested for the Faculty member to attend the National Conference where the International Botball Competition is being held. The team of high-school students mentored by the Faculty member earned 1st place in the Regional Competition held in Little Rock in March, and plan to follow on by competing at the next level.

Purpose / Objectives

This is the fourth year in which I have mentored a team of local high-school students in the Botball competition. Started by a ex-NASA engineer who worked on the first Martian Rover, Botball seeks to introduce the engineering process to high-school students through the challenge of designing, building, programming and refining an autonomous robot to attempt a series of tasks in a 90-second period.

The first stage of competition ends in a Regional contest; for the first time, this year, our team won first place at this level. The second stage, the national competition, is open to all regional contestants. For the last two years, I have attended the Conference and National competition, through personal and some departmental funding.

This year's competition will be more expensive than I can easily fund on my own, or through the department resources, so I am requesting support through the University's Professional Development Grant Funds. It should be noted that the team is seeking funds from other sources: the equipment needed to compete is already acquired (and been used to construct a competitive entry) and the students are fund-raising separately to earn some of their travel

expenses – we have received grants from the Botball organizers, from UALR, and from local industry.

Significance / Need

Participating in Botball provides me with an opportunity to work with the kinds of students who might be attending Tech a year or two later in their lives, improving my ability to connect with and teach Tech students.

Participating in Botball provides visibility for Arkansas Tech among the academically advanced students who compete in Botball. Participating at the National Level is a worth-while prize for this team: rewarding the team increases the ability of the team to attract successful members for later years.

Attainment of Goals

The conference and competition are scheduled; our team's travel is in the middle of being booked. All we need to do is travel and compete.

Dissemination of Results

Our team is already beginning the sponsorship of a team in the Clarksville area: this provides connections for attracting students to Tech's engineering and computing programs. Small items have appeared in the two local newspapers, and regional TV coverage was recorded.

Repeated Requests

This is not a repeated request.

Bibliography

Information about the Botball competition and about the National Conference on Educational Robotics can be found at www.botball.org .

Application Vita

- | | |
|----------------|--|
| February, 2004 | Began mentoring the our first Botball team |
| July, 2005 | Took member of our second Botball team to compete at Nationals, held at the University of Florida Won first place among adults and students in the technical part of the robotics knowledge test. |
| July, 2006 | Took members of our third Botball team to compete at Nationals, held at the University of Oklahoma, in Norman |
| March, 2007 | Fourth Botball team, won Regional Botball Competition, unbeaten against seven other teams, including one from the Arkansas School for Math, Science and the Arts. |

**PROPOSED BUDGET
FACULTY RESEARCH GRANT**
(include budget categories as appropriate)

| | | |
|----|--|----------------------------|
| 1. | Graduate assistant stipend | \$ _____ |
| | Fringe benefits @ .4% (4/10 percent) of graduate assistant stipend | _____ |
| 2. | Non-work study stipend | _____ |
| | Fringe benefits @ .4% (4/10 percent) of non-work study stipend | _____ |
| 3. | *Supplies (please list items to be purchased and estimated price per item including taxes and shipping, if appropriate): | |
| | Item No. 1 (e.g., software) | Estimated Price _____ |
| | Item No. 2 (e.g., copying costs) | Estimated Price _____ |
| | Item No. 3 | Estimated Price _____ |
| | (additional lines as needed) | |
| | Total estimated supplies | _____ |
| 4. | Travel (please list travel expenditures by date and estimated costs): | |
| | Travel No. 1 July 8-16 Hotel | Estimated Price _____ 1520 |
| | Travel No. 2 July 8-16 Flight | Estimated Price _____ 950 |
| | Travel No. 3 July 8-16 Food | Estimated Price _____ 240 |
| | (additional lines as needed) | |
| | Total estimated travel | _____ 2710 |
| 5. | *Capital Outlay (please list items to be purchased and estimated price per item including taxes and shipping, if appropriate): | |
| | Item No. 1 | Estimated Price _____ |
| | Item No. 2 | Estimated Price _____ |
| | Item No. 3 | Estimated Price _____ |
| | (additional lines as needed) | |
| | Total estimated capital outlay | _____ |
| | TOTAL PROPOSED BUDGET | \$ _____ 2710 |

*Items purchased under \$2,500 (including taxes and shipping) are considered supply items. Capital Outlay items are those which cost \$2,500 or more (including taxes and shipping). Please contact the Purchasing Office for questionable items.