Engineering Student Technology Committee
Technology Fee Project Proposal
Must be submitted on or before February 9, 2001

Please use this form to request technology fee expenditures for equipment in classrooms, computer laboratories, or other instructional or research laboratories, in keeping with the State Board of Agriculture Charges for Technology Manual guidelines found at http://www.colostate.edu/services/acns/itec/fee.html. Technology committee members are available for assistance, the names of whom appear in Section IV. Also see Section IV for submission information.

Section I. Overview

1. Title of proposal

    Renewal of College Academic License for LabView Software from National Instruments, Inc.

2. Submitted by (Name & contact information of primary submitter(s) – up to three)
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* Proposals with wide-spread support from a cross-section of the college will be given preference. Although this form may be submitted electronically with a list of supporters, actual signatures are required for all supporters beyond the original submitter(s).

4. This project request is
    - ❑ for student wages
    - ✳ for software
    - ❑ to maintain and/or upgrade existing facilities (replacement equipment only requested)
    - ❑ to augment and maintain existing facilities (some new equipment requested)
    - ❑ to provide a new facility (all new equipment requested)

5. Brief summary of proposal (Please limit answer to no more than one paragraph)
    Renew the virtual instrumentation software package software currently used in various undergraduate and graduate engineering laboratories. This software expedites the acquisition of data for a wide variety of purposes including fluid and solid mechanics measurements, heat transfer, automotive measurements, electronic instrumentation, chemical mixing experiments, etc. Currently use of this software is being taught in the undergraduate/graduate class CE505 Engineering Metrology.

6. Location for proposed equipment or software:

Should be installed on various laboratory computers as appropriate as well as computers in Lockheed-Martin Design studio.

6a. Equipment/Software requested (complete only if proposal is for equipment and/or software):

Specific equipment needed	Number Requested	Unit Cost	Total Cost

Specific software needed	Number Requested	Unit Cost	Total Cost
LabView Version	1 college license	$2,000	$2000

Total cost: $2,000

Section II. Pedagogical considerations

1. <u>What are the pedagogical goals of this proposal</u>? (Please limit answer to no more than three paragraphs)

To provide resources that compliment measurement of data in laboratories dedicated to teach engineering physics, engineering principles, and to assist in the acquisition of research data for graduate dissertations.

2. <u>Why is the request appropriate for the goals stated in #1, above?</u>
        (complete only if proposal is for equipment and/or software):

This software is the number 1 platform used internationally to assist in A/D data acquisition and the construction of virtual instrumentation and programs to run experiments, take data, manipulate the data, and display the results. The college maintained a college license until Spring 2000 at which time it went inactive due to an oversight in purchasing.

3. <u>Planned course/research benefit:</u>

Course No./Research projects	Number of students affected/semester
CE300 Fluid Mechanics	70 average
CE301 Hydraulics	40 average
CE360 Mech of Materials	40 average
CE504 Wind Engineering	15 average
CE505 Metrology	10 average
EE372 Physical Electronics	50 average
EE404 Exp in Optoelectronics	30 average
ME404/405 ME Senior Design	80 average
ME338 Thermosciences Lab	50 average
Etc.	

Research projects in At Sci/ChemE/CE/EE/ME   100 average
        MS and PhD levels

4. <u>How will this proposal improve instruction (specific lessons, experiments, exercises affected, etc.)?</u>
(Please limit answer to no more than three paragraphs)

        Varied experiments in structural and fluid mechanics in Structures and Thermal fluid Sciences Laboratories, etc.

Section III. Operation, Maintenance, and Funding

<u>1. What functionality will this equipment provide that is not already available elsewhere in the college?</u>

Current version of LabView being used is currently two Updates out of date.

<u>2. How many hours per week (M-F, between 7am and midnight) will this equipment be accessible for general student use?</u> (complete only if proposal is for equipment and/or software)

Software should be available 40 hours/week during regular M-F period, but can also be accessed at any graduate computer at any time if installed.

<u>3. How will students be made aware of this project?</u> (complete only if proposal is for equipment and/or software)

Students will routinely use software during regular laboratory sessions

<u>4. Complete either A or B:</u>
>   A. If this request is for student employee wages, who will be the supervisor of those students?
>   (the supervisor must sign here if name does not appear in Section I, #2 or #3)

>   <u>B. If this request is not for student employee wages, who will be responsible for oversight and any installation, ongoing maintenance, or repair for this project?</u>
>   (the responsible party must sign here if name does not appear in Section I, #2 or #3)

<u>5. What operation & maintenance services would be needed from ENS staff? from department staff?</u>

>   Software must be loaded and maintained on regular UG laboratory computers. The users can install software on graduate research computers.

<u>6. What modifications of current space will be necessary to install the new equipment (remodeling, wiring, security, furniture, etc.) and what is the source of funding for those modifications?</u>

>   None

<u>7. What is the estimated cost of operational expenses (supplies, maintenance, supervision, student assistance, etc.) and how will those expenses be funded?</u>

>   Annual license fee required.

<u>8. What other sources of funding (and how much) exist for this project (outside grants, equipment donations, reallocation of existing equipment, etc.)?</u>

>   None

<u>9. What attempts have been made to obtain the funding from other sources?</u>

>   None