

**FY 2008-09 LOUISIANA BOARD OF REGENTS SUPPORT FUND
TRADITIONAL ENHANCEMENT COMPONENT
ENGINEERING B**

Introduction

An Engineering B review panel consisting of Dr. David B. Beasley (chair), North Carolina State University; Dr. Monika Ivantysnova, Purdue University; Dr. Oscar Barton, Jr., U.S. Naval Academy; and Dr. R. Allen Miller, The Ohio State University met March 1-3, 2009 in Baton Rouge to evaluate forty-eight (48) Engineering B proposals requesting a total of \$5,829,446 in first-year funding through the Traditional Enhancement component of the Board of Regents Support Fund.

Each panel member reviewed the proposals prior to arrival in Baton Rouge, and each prepared a detailed review for presentation at the meeting. All proposals were discussed in detail, which resulted in comments, suggestions, and debate about the various aspects of each proposal, given the four reviewers' backgrounds and areas of expertise. In each case, unanimous agreement was reached with respect to the ranking and recommended funding. The panel believes that each proposal received a thorough and fair evaluation based upon the criteria enumerated on the proposal rating forms (Appendix B).

Of the 48 Engineering B proposals requesting a total of \$5,829,446, the panel recommended a total of \$1,740,189 for fourteen (14). Of that number, two were recommended for full funding and the remaining twelve (12) for partial funding. The reduction recommended for each of the partially funded proposals was based on a thorough review of the budget and the institutional cost sharing, and resulted in a recommended amount corresponding to the proposal's most pressing needs and merits.

Table I contains a rank-ordered list of proposals highly recommended for funding with recommended funding levels. Only proposals with a score of 77 or greater are found in the table. Three (3) proposals that scored between 71 and 74 are recommended for funding if additional money becomes available (Table II). Proposals not recommended for funding and ranking below 70 are listed in Table III. A detailed review of each proposal follows immediately after the tables. A summary of all proposals submitted (Appendix A) and a copy of both rating forms used in the evaluations (Appendix B) are attached at the end of the report.

In addition, a few proposals were not recommended for funding because, in the consensus view of the panel, they were deemed to be more appropriate for funding consideration by other disciplinary panels.

TABLE I
ENGINEERING B
PROPOSALS HIGHLY RECOMMENDED FOR FUNDING

RANK	RATING	PROPOSAL NO.	INSTITUTION	FIRST YEAR FUNDS REQUESTED	FIRST YEAR FUNDS RECOMMENDED	SECOND YEAR FUNDS REQUESTED	SECOND YEAR FUNDS RECOMMENDED
1	96	001ENGB-09	LSU-AG	\$290,367	\$282,872	\$0	\$0
2	94	002ENGB-09	LSU-AG & LSU-BR	\$146,840	\$144,840		
3	92	012ENGB-09	LSU-BR	\$195,000	\$192,000		
4	91	027ENGB-09	MCNEESE	\$101,250	\$99,800		
5	89	021ENGB-09	LA TECH	\$63,775	\$59,885		
6	88	025ENGB-09	LA TECH	\$18,073	\$18,073		
7	87	038ENGB-09	ULL	\$93,000	\$79,000	\$12,000	\$12,000
8	86	020ENGB-09	LA TECH	\$59,358	\$49,608		
9	85	040ENGB-09	ULL	\$65,978	\$50,978		
10	84	032ENGB-09	SUBR	\$83,387	\$73,387		
11	82	035ENGB-09	TULANE	\$125,700	\$103,500		
12	79	013ENGB-09	LSU-BR	\$272,246	\$267,246	\$0	\$0
13	78	016ENGB-09	LA TECH	\$72,000	\$72,000		
14	77	046ENGB-09	UNO	\$297,000	\$247,000		
			TOTALS:	\$1,883,974	\$1,740,189	\$12,000	\$12,000

TABLE II
ENGINEERING B
PROPOSALS RECOMMENDED FOR FUNDING
IF ADDITIONAL FUNDS BECOME AVAILABLE

RANK	RATING	PROPOSAL NO.	INSTITUTION	FIRST YEAR FUNDS REQUESTED	FIRST YEAR FUNDS RECOMMENDED	SECOND YEAR FUNDS REQUESTED	SECOND YEAR FUNDS RECOMMENDED
15	74	043ENGB-09	ULL	\$147,675	\$147,675		
16	72	036ENGB-09	ULL	\$90,920	\$71,420		
17	71	019ENGB-09	LA TECH	\$57,108	\$57,108		
			TOTALS:	\$295,703	\$276,203	\$0	\$0

**TABLE III
ENGINEERING B
PROPOSALS NOT RECOMMENDED FOR FUNDING**

RANK	RATING	PROPOSAL NO.	INSTITUTION	FIRST YEAR FUNDS REQUESTED	FIRST YEAR FUNDS RECOMMENDED	SECOND YEAR FUNDS REQUESTED	SECOND YEAR FUNDS RECOMMENDED
18	69	010ENGB-09	LSU-BR	\$140,000	\$0		
18	69	017ENGB-09	LA TECH	\$78,155	\$0		
20	68	014ENGB-09	LSU-BR	\$261,426	\$0		
20	68	039ENGB-09	ULL	\$30,135	\$0		
20	68	047ENGB-09	UNO	\$135,000	\$0		
23	67	037ENGB-09	ULL	\$110,751	\$0	\$49,231	\$0
23	67	041ENGB-09	ULL	\$84,774	\$0		
23	67	048ENGB-09	UNO	\$131,050	\$0		
26	66	003ENGB-09	LSU-BR	\$225,000	\$0		
26	66	023ENGB-09	LA TECH	\$100,000	\$0		
28	65	005ENGB-09	LSU-BR	\$240,000	\$0		
28	65	030ENGB-09	NSU	\$89,839	\$0		
30	64	004ENGB-09	LSU-BR	\$120,000	\$0		
30	64	044ENGB-09	ULM	\$30,150	\$0		
32	63	006ENGB-09	LSU-BR & SUBR	\$99,880	\$0		
32	63	009ENGB-09	LSU-BR	\$259,680	\$0		
32	63	024ENGB-09	LA TECH	\$42,000	\$0		
32	63	042ENGB-09	ULL	\$78,677	\$0		
36	62	008ENGB-09	LSU-BR	\$282,000	\$0		
36	62	018ENGB-09	LA TECH	\$59,975	\$0		
36	62	022ENGB-09	LA TECH	\$65,549	\$0		
39	61	011ENGB-09	LSU-BR	\$183,575	\$0	\$0	\$0
39	61	015ENGB-09	LSU-S	\$25,045	\$0		
39	61	026ENGB-09	MCNEESE	\$51,460	\$0		
42	60	007ENGB-09	LSU-BR	\$108,398	\$0	\$52,406	\$0
43	58	045ENGB-09	UNO	\$156,134	\$0		
44	56	031ENGB-09	SUBR	\$65,538	\$0		
45	55	034ENGB-09	SUBR	\$73,471	\$0		
46	54	028ENGB-09	MCNEESE	\$111,679	\$0		
46	54	033ENGB-09	SUBR	\$144,473	\$0		
48	50	029ENGB-09	NICHOLLS	\$65,955	\$0		
TOTALS:				\$3,649,769	\$0	\$101,637	\$0

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 001ENGB-09

INSTITUTION: Louisiana State University and A&M College - Agricultural Center

PRINCIPAL INVESTIGATOR: Dorin Boldor

TITLE OF PROPOSAL: Acquisition of Equipment to Enhance the Bioenergy- and
Nanotechnology-Targeted Bioprocessing Research
Capability of Biological and Agricultural Engineering

A. The Current Situation
(Total of 10 Points)

A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment
(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**
(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan
(Total of 52 Points)

B.1 5 (of 5 points)
B.2 15 (of 15 points)
B.3 19 (of 20 points)
B.4 5 (of 5 points)
B.5 2 (of 2 points)
B.6 5 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 96 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

		<u>YEAR 1</u>	<u>YEAR 2</u>
SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	<u>\$290,367</u>	<u>\$0</u>
	Recommended Amount:	<u>\$282,872</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal would enhance bioprocessing research and education in both the bioenergy and nanotechnology areas. The proposal is strong, as is the research team, and has a high potential for significant academic and economic impact. The panel recommends partial funding of \$282,872 in year one, with the institution assuming the cost of supplies and part of the cost of the continuous microwave drying equipment. The pledged institutional match should be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 002ENGB-09

INSTITUTION: Louisiana State University and A&M College - Agricultural Center
Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Qinglin Wu

TITLE OF PROPOSAL: Enhancing R&D Capability for Creating and Characterizing
Microcellular Structured Materials in Sustainable Engineering
Composite Research

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 94 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
B.2 14 (of 15 points)
B.3 19 (of 20 points)
B.4 5 (of 5 points)
B.5 2 (of 2 points)
B.6 5 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$146,840

RECOMMENDATIONS: Recommended Amount \$144,840

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This joint LSU-Ag Center/LSU-BR proposal would strengthen capabilities for creating and characterizing microcellular materials. The project team is highly qualified, the proposal presents an excellent discussion of the technology, and the potential impact of the project and the connection with industry is good. Although the cost share is not strong, the total project cost is reasonable. The panel recommends partial funding of \$144,840 for this project and maintenance of the institutional match.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 003ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Sumanta Acharya

TITLE OF PROPOSAL: Particles and Species Analysis Equipment in High-Temperature
(Combustion) Environments

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 6 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 66 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 10 (of 15 points)
 B.3 12 (of 20 points)
 B.4 3 (of 5 points)
 B.5 1 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes _____ No X

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$225,000
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This project team, which is capable and has received significant previous BOR support, seeks funds to analyze particles and species in combustion environments. While the proposal is interesting and linked to State initiatives, the panel found little in it relating to internal plans -- no schedule and no metrics. Neither is maintenance accounted for, which can be a significant concern with portable, shared equipment. Current interactions with industry for a senior team are limited, and the institutional match is relatively small. The panel does not recommend funding this project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 004ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Steve C. S. Cai

TITLE OF PROPOSAL: Acquiring a Distributed Fiber Optic Sensing System for
Enhancement of Research and Education Related to Infra-
structure Materials and Industrial Composite Materials

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 5 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 64 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
B.2 9 (of 15 points)
B.3 11 (of 20 points)
B.4 4 (of 5 points)
B.5 2 (of 2 points)
B.6 4 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$120,000
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal's concern is setting up a distributed fiber optic system for studying and measuring infrastructure materials. This is an interesting proposal from a strong team. The proposed enhancement would seem to improve only the team's research competitiveness. The impact on the curriculum is unclear, and there is a corresponding lack of clarity regarding performance metrics. The panel is in agreement that the work described in the proposal appears to align better with Engineering A programs/taxonomies, and for these reasons does not recommend funding it.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 005ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Jost Goettert

TITLE OF PROPOSAL: Laser Writer

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
 C.2 1 (of 1 point)
 C.3 1 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 6 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 65 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 9 (of 15 points)
 B.3 12 (of 20 points)
 B.4 4 (of 5 points)
 B.5 2 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$240,000
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This well-written proposal is a request for funding to acquire a high-resolution laser writer for patterning structures down to 1 micron. The proposed project's educational impact appears to be solely on graduate students. Existing industrial collaborations are alluded to by the productive faculty team, but they are not described, and there are no external support letters. The proposed work seems to be more electrical/electronics than materials engineering. The panel suggests that this project might be a better fit in Engineering A and does not recommend funding for it.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 006ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge
Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Shengmin Guo

TITLE OF PROPOSAL: A Robot Manipulator for a Plasma Spray System and
Mechanical Engineering Education

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 4 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 3 (of 6 points)
C.2 1 (of 1 point)
C.3 1 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**
(Total of 12 Points)
E.1 2 (of 2 points)
E.2a 5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 63 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 3 (of 5 points)
B.2 9 (of 15 points)
B.3 12 (of 20 points)
B.4 3 (of 5 points)
B.5 2 (of 2 points)
B.6 4 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 9 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 2 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$99,880
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This is a joint proposal of LSU and SUBR to acquire equipment to enhance plasma spraying and mechanical engineering education. While the proposal describes a nice variety of potential applications for the equipment, the purchase of it would probably only result in an incremental improvement to the group's capabilities. The metrics are not completely clear. The panel notes the project's potential impacts, but there are no external support letters. We do not recommend funding the project but suggest that the PIs investigate companies that often place this type of equipment on consignment.

RATING FORM FOR ENHANCEMENT REQUESTS OTHER THAN EQUIPMENT PURCHASES

PROPOSAL NUMBER: 007ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Craig Harvey

TITLE OF PROPOSAL: Enhancing Undergraduate Construction Management
Recruiting and Education Through Hands-on Construction
Curriculum Materials

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Faculty and Staff Expertise
(Total of 12 Points)
C.1 9 (of 12 points)

D. Economic and/or Cultural Development and Impact
(Total of 12 Points)
D.1 1 (of 2 points)
D.2a _____ (For S/E)
or _____ (of 10 points)
D.2b 5 (For NS/NE)

B. The Enhancement Plan
(Total of 62 Points)
B.1 3 (of 5 points)
B.2 11 (of 20 points)
B.3 12 (of 25 points)
B.4 3 (of 5 points)
B.5 2 (of 2 points)
B.6 4 (of 5 points)
B.7 Yes X No _____

E. Additional Funding Source:
(Total of 4 Points)
E.1 4 (of 4 points)

F. Previous Support Fund Award:
(No Points Assigned)
F.1 Yes X No _____

G. Total Score: 60 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

	<u>YEAR 1</u>	<u>YEAR 2</u>
SPECIFIC BUDGETARY RECOMMENDATIONS:		
Requested Amount:	<u>\$108,398</u>	<u>\$52,406*</u>
Recommended Amount:	<u>\$0</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This non-equipment proposal's goal is to enhance the LSU Construction Management program by improving recruiting and education, particularly with regard to underrepresented groups. The panel notes that the proposed team is qualified, but could be improved with the addition of an assessment specialist. The external support is excellent, and the proposed curricular changes appear to be significant. However, the panel has some unanswered questions. Will the new courses be piloted before committing them to the curricula? Will women, Hispanics, other groups be included? Are diversity and program enrollment the only issues of concern for the program? For the relatively small changes anticipated this is an expensive effort, one for which the panel does not recommend funding.

*NOTE: The RFP restricts requests for 2nd year funding to \$50,000.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 008ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Rongying Jin

TITLE OF PROPOSAL: Large and Clean Single Crystal Growth via an Image Furnace
for Multidisciplinary Materials Research and Education

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 5 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 62 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 9 (of 15 points)
 B.3 12 (of 20 points)
 B.4 3 (of 5 points)
 B.5 2 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$282,000</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI wants to acquire an image furnace to enhance the growth of large and clean single crystals for multidisciplinary materials research and education. The team appears strong, but the panel notes that most of its members are physicists and/or chemists, and the taxonomies (and intent) of the project primarily benefit either physics or chemistry. The project's objectives are very general, and there appears to be no real schedule or benchmarking. Collaboration with the K-12 sector is mentioned, but the proposal does not justify that claim. No letters of support are evident. The panel does not recommend funding for the project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 009ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Yaroslav Losovj

TITLE OF PROPOSAL: Enhancement of Nanophase Materials Characterization System at 3m NIM Beamline at CAMD

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 4 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
B.2 9 (of 15 points)
B.3 11 (of 20 points)
B.4 3 (of 5 points)
B.5 2 (of 2 points)
B.6 4 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes X No _____

H. Total Score:

63

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$259,680
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal would support the enhancement of CAMD's 3m NIM beamline with a tunneling microscope for conducting nanophase materials characterization. While the team appears to be capable and productive, both members are physicists. Surprisingly, the proposal contained a number of typos and the formatting was, at times, confusing, sometimes obscuring the PIs' real intent. No schedule or benchmarks were presented, and the metrics appear to be largely unmeasurable. A better match for this proposal might possibly be the Natural Science disciplines. The panel does not recommend funding for the project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 010ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Wen Meng

TITLE OF PROPOSAL: Acquisition of an Integrated Energy Dispersive Spectroscopy (EDS) and Electron Backscattering Diffraction System (EBDS) for Multidisciplinary Materials Research and Education

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 4 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 69 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 11 (of 15 points)
 B.3 14 (of 20 points)
 B.4 4 (of 5 points)
 B.5 2 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$140,000
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI wants to integrate energy dispersive spectroscopy and electron backscattering diffraction to enhance multidisciplinary materials research and education. There is a strong team involved and the proposed work has the potential to produce a meaningful impact. However, there appear to be no truly integrating goals, but rather a collection of research activities. It seems that the project's focus is on maintaining the current status, not ascending to the next level. There do not seem to be any metrics, and the external support is limited. The entire proposal appears to have been hastily assembled. The team is primarily composed of chemists and physicists and, perhaps, the project should consider seeking funding from the Natural Sciences.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 011ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Eizi Morikawa

TITLE OF PROPOSAL: Soft-X-ray Spectroscopy at LSU-CAMD: Enhancing Users' Research Capabilities with a Mirror and a Window

A. The Current Situation
(Total of 10 Points)

A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)
C.1 3 (of 6 points)
C.2 1 (of 1 point)
C.3 1 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)
E.1 2 (of 2 points)
E.2a 4 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 61 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)

B.1 3 (of 5 points)
B.2 10 (of 15 points)
B.3 11 (of 20 points)
B.4 4 (of 5 points)
B.5 2 (of 2 points)
B.6 4 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)

D.1 8 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

		<u>YEAR 1</u>	<u>YEAR 2</u>
SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	<u>\$183,575</u>	<u>\$0</u>
	Recommended Amount:	<u>\$0</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI wishes to procure a mirror and window to enhance soft X-ray capabilities at CAMD. While the idea is interesting, the information presented does not show a need for or a real benefit from the requested equipment. A support letter explains a problem, but no letters indicate the need for the approach described. The proposal's focus seems to be on one new faculty member, and the panel wonders if this request is in lieu of startup funds. The proposed metrics are not likely to measure what should be measured. Additionally, the team is composed of physicists and chemists and the research area is primarily physics and chemistry. This proposal would probably be a better fit in the Natural Sciences. No funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 012ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Dimitris Nikitopoulos

TITLE OF PROPOSAL: A Digital Holographic Particle Image Velocimetry and
Visualization System

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 5 (of 5 points)
 A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 8 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 92 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 14 (of 15 points)
 B.3 19 (of 20 points)
 B.4 5 (of 5 points)
 B.5 2 (of 2 points)
 B.6 5 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$195,000</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$192,000</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

Funds are requested to accomplish digital holography particle image velocimetry and visualization. The proposal is well written, although the goals section is missing. The requested enhancement should elevate the productivity of an already excellent research program and team. Partial funding of \$192,000 is recommended by deleting \$3,000 for supplies. The institutional match should be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 013ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Amitava Roy

TITLE OF PROPOSAL: Hard X-Rays for Materials Science at CAMD

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 7 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 79 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 12 (of 15 points)
 B.3 15 (of 20 points)
 B.4 3 (of 5 points)
 B.5 2 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

		<u>YEAR 1</u>	<u>YEAR 2</u>
SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	<u>\$272,246</u>	<u>\$0</u>
	Recommended Amount:	<u>\$267,246</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal requests funds for x-ray equipment to expand the capabilities of the Center for Advanced Microstructures and Devices (CAMD). The project team is well qualified and the equipment will support an expanded research program and interaction with industry. The project metrics could be strengthened to ensure that the impact of the enhancements can be documented. The panel recommends that the proposal be funded at the requested level, less \$5,000 for supplies. The institutional match should be fully maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 014ENGB-09

INSTITUTION: Louisiana State University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Varshni Singh

TITLE OF PROPOSAL: State-of-the-Art Atomic Force Microscope (AFM) with Nano-TA

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 0 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 5 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 10 (of 15 points)
 B.3 12 (of 20 points)
 B.4 3 (of 5 points)
 B.5 1 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 3 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes _____ No no information was found

H. Total Score: 68 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY RECOMMENDATIONS: Requested Amount: \$261,426
 Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal was written to obtain an atomic force microscope for LSU's Center for Advanced Microstructures and Devices (CAMD). It is jargon-filled, making it difficult for the panel to assess the descriptive material and rationale. The project's objectives focus on the equipment purchase rather than on establishing programmatic outcomes that would be enabled by use of the microscope. It is impossible to judge the degree to which this enhancement would make a significant contribution to CAMD's overall eminence. The economic impact of the proposed equipment is limited to internal research support, and the lack of supporting letters and internal support limited primarily to salary is surprising for a user-fee facility of this type. No funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 015ENGB-09

INSTITUTION: Louisiana State University and A&M College - Shreveport

PRINCIPAL INVESTIGATOR: Gary Boucher

TITLE OF PROPOSAL: SMT Component Placement System for Undergraduate Student Training

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 2 (of 6 points)
 C.2 1 (of 1 point)
 C.3 1 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 2 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 10 (of 15 points)
 B.3 10 (of 20 points)
 B.4 3 (of 5 points)
 B.5 3 (of 2 points)
 B.6 2 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 3 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 61 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$25,045
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI seeks a pick-and-place robot for surface-mounted components in LSU-S' robotics lab. The objective is laudable but the rationale for using surface-mount technology as the vehicle for the robotics experiences was unclear, particularly in light of the type of industries listed as employers of program graduates. Robot suppliers will often provide such equipment on consignment, which can lead to useful interactions and collaboration. Establishment of such relationships is encouraged. The panel does not recommend funding the project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 016ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Alan Chiu

TITLE OF PROPOSAL: High Density EEG/ERP 3D Visualization Lab

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 5 (of 5 points)
 A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 5 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 12 (of 15 points)
 B.3 11 (of 20 points)
 B.4 3 (of 5 points)
 B.5 2 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes _____ No no information was found

H. Total Score: 78 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$72,000</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$72,000</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This project will establish a high resolution visualization laboratory at Louisiana Tech University that is designed to meet a need documented by both student and industry feedback. The laboratory will affect numerous courses in the Biomedical Engineering program and should have a significant impact on student learning. The panel recommends full funding.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 017ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Kelly Crittenden

TITLE OF PROPOSAL: Advanced Manufacturing and Prototyping with 5-axis
Computer Controlled Machining

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 3 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 69 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 10 (of 15 points)
 B.3 12 (of 20 points)
 B.4 3 (of 5 points)
 B.5 1 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$78,155
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal is a request for a 5-axis computer controlled router for an existing prototyping laboratory. The project team is very capable with a good mix of skills. The panel is unconvinced that purchase of the requested equipment, given the existing facilities, would lead to a significant improvement in the program. The proposal evidences no industry involvement in the development of the concept. Such support would have strengthened the case for the relevance and need for this piece of equipment. The panel does not recommend funding this proposal.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 018ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Despina Davis

TITLE OF PROPOSAL: Energy-Dispersive X-ray Fluorescence Analyzer (EDXRF):
An Enhancement of Graduate and Undergraduate Education
Through Practical Research Training

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 4 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 2 (of 5 points)
B.2 10 (of 15 points)
B.3 10 (of 20 points)
B.4 3 (of 5 points)
B.5 1 (of 2 points)
B.6 4 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 4 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 62 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$59,975
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal would enable acquisition of an energy dispersive X-ray fluorescence analyzer (EDXRF). While the proposal makes a reasonable case for the acquisition and its potential impact on research and education, the reviewers note that the entire team is composed of chemical and electrical engineers and chemists, and that the thrust of the proposed work also fits those taxonomies. It is the opinion of the panel that this proposal would stand a better chance of being funded in the Engineering A category. Funding is not recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 019ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Alfred Gunasekaran

TITLE OF PROPOSAL: Enhancement of Graduate Education in Materials
Characterization by Non-destructive Interferometric Method

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 4 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 1 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**
(Total of 12 Points)
E.1 2 (of 2 points)
E.2a 5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 71 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 4 (of 5 points)
B.2 10 (of 15 points)
B.3 12 (of 20 points)
B.4 3 (of 5 points)
B.5 1 (of 2 points)
B.6 3 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 10 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 4 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$57,108
RECOMMENDATIONS: Recommended Amount \$57,108 (if additional funds
become available)

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal addresses non-destructive characterization of thin films. The project team is strong, but much of the material in the proposal is very general. The work plan identifies the desired outcomes, but not how or by whom they are to be achieved. The significance of the equipment enhancement toward meeting program or institutional goals is not fully addressed. However, several of the proposed metrics are quite good and the center has a significant history of collaboration with industry, both of which are positive signs for continued impact. It is the panel's opinion that this proposal would have a better chance of funding in the Engineering A category. Despite this opinion, the panel recommends full funding if additional funds become available.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 020ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Jun-Ing Ker

TITLE OF PROPOSAL: Enhancement of Industrial Ergonomics Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 7 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 86 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 13 (of 15 points)
 B.3 18 (of 20 points)
 B.4 5 (of 5 points)
 B.5 1 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$59,358</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$49,608</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal addresses establishment of an ergonomics lab for LaTech's industrial engineering program. The need for the program is documented, the project has industry input, and the proposed laboratory will significantly improve the program by exposing students to important topics that are not currently addressed in the curriculum. The work plan is very good, but the evaluation component and performance metrics could be stronger. Partial funding of \$49,608 is recommended by deleting supplies (\$9,750). However, the proposed institutional match should be fully maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 021ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Ralph McKinney

TITLE OF PROPOSAL: Enhancement of Undergraduate Materials Testing

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 5 (of 5 points)
 A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 6 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 14 (of 15 points)
 B.3 17 (of 20 points)
 B.4 5 (of 5 points)
 B.5 1 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 89 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$63,775</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$59,885</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI requests funds for a testing machine for the undergraduate materials laboratory. The equipment should result in a significant improvement in the experimental options available and much better data for the staff and students. However, project metrics are highly subjective and should be modified to provide better data to document the effect of the lab enhancement on student capabilities. Partial funding of \$59,885 is recommended by subtracting \$3,890 for installation and service. Nonetheless, the panel recommends that the institutional match be maintained as pledged.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 022ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: D. Patrick O'Neal

TITLE OF PROPOSAL: Nanotechnology Lab Enhancement for Biomedical
Nanoparticle Manufacture Education

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 1 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 5 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 62 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 8 (of 15 points)
 B.3 10 (of 20 points)
 B.4 3 (of 5 points)
 B.5 1 (of 2 points)
 B.6 2 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$65,549
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The project team is strong and should to be commended for its efforts in interdisciplinary education. However, details of how the requested instruments would be integrated into the listed courses are lacking; consequently, the impact on the curricula is unclear. The evidence of potential to achieve eminence addresses only faculty backgrounds and activities, but does not address the impact of the proposed enhancements. Lack of that information factored into the panel's decision not to recommend funding for the project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 023ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Ping-Fai Sit

TITLE OF PROPOSAL: Mechanical Testing and Characterization Laboratory of
Biological Materials

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
 C.2 1 (of 1 point)
 C.3 0 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 4 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 66 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 10 (of 15 points)
 B.3 12 (of 20 points)
 B.4 5 (of 5 points)
 B.5 1 (of 2 points)
 B.6 5 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$100,000
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI requests funds for a biomaterials testing laboratory. The objectives stated in the proposal address only the equipment requested and do not link the proposed laboratory to programmatic or institutional objectives. Detailed equipment costs or quotes were not included in the proposal. It is our opinion that the project would provide useful equipment, but the impact on the program is not well defined. The panel does not recommend funding for this proposal.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 024ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Heath Tims

TITLE OF PROPOSAL: Enhancing Product Development Through a Reverse Engineering Lab

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 4 (of 5 points)
A.3 4 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 3 (of 6 points)
C.2 1 (of 1 point)
C.3 1 (of 3 points)

E. Economic and/or Cultural Development and Impact
(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 3 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 63 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 4 (of 5 points)
B.2 10 (of 15 points)
B.3 10 (of 20 points)
B.4 5 (of 5 points)
B.5 1 (of 2 points)
B.6 3 (of 5 points)
B.7 Yes _____ No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 10 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 3 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes x No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY RECOMMENDATIONS: Requested Amount: \$42,000
Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal requests equipment for a reverse engineering laboratory that would be used in freshman and senior courses with the objective of developing a better understanding of the product development process. While the project team is qualified, none has industry experience. The proposal would have benefited from industry involvement in setting objectives and determining the project plan. As written, the project's goals are not linked to program or institutional objectives. Other than listing the courses that would use the lab, there is no discussion of how the new laboratory would be developed and integrated into the curriculum. The panel does not recommend funding for this project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 025ENGB-09

INSTITUTION: Louisiana Tech University

PRINCIPAL INVESTIGATOR: Leland Weiss

TITLE OF PROPOSAL: Internal Combustion Engine Research and Development
Laboratory Enhancement

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 5 (of 5 points)
 A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 9 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 14 (of 15 points)
 B.3 18 (of 20 points)
 B.4 5 (of 5 points)
 B.5 2 (of 2 points)
 B.6 2 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 88 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$18,073</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$18,073</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal presents a very clear enhancement plan, and the PIs are well qualified to undertake it. The equipment will be used for undergraduate education in which students learn to conduct performance measurements on internal combustion engines using state-of-the-art equipment, including data acquisition. The panel recommends full funding for this inexpensive but very worthwhile project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 026ENGB-09

INSTITUTION: McNeese State University

PRINCIPAL INVESTIGATOR: Pankaj Chandra

TITLE OF PROPOSAL: Development of a Pipe Stress Analysis Training Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 5 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 10 (of 15 points)
 B.3 12 (of 20 points)
 B.4 2 (of 5 points)
 B.5 2 (of 2 points)
 B.6 1 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 3 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 61 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$51,460
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel is unconvinced that funding this proposal as it is presented will improve students' training. The current situation is not well described. The educational software license listed cannot be used for industrial training; ironically, the enhancement plan describes industrial training as one of the project's goals. The section on the equipment's impact on the curricula and how the equipment will be introduced into existing courses is missing. The panel does not recommend funding this project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 027ENGB-09

INSTITUTION: McNeese State University

PRINCIPAL INVESTIGATOR: Zhuang Li

TITLE OF PROPOSAL: Enhancement of Dynamics of Machinery

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
E.2a 9 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
B.2 14 (of 15 points)
B.3 18 (of 20 points)
B.4 4 (of 5 points)
B.5 2 (of 2 points)
B.6 3 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes _____ No X

H. Total Score:

91

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$101,250
RECOMMENDATIONS: Recommended Amount \$99,800

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This is a very well-written proposal from a PI who has a good research background and valuable industrial experience. The panel recommends \$99,800 in partial funding for the equipment, minus \$1,200 for supplies and \$250 for shipping charges, which should be absorbed by the university. Likewise, the institutional match should be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 028ENGB-09

INSTITUTION: McNeese State University

PRINCIPAL INVESTIGATOR: Ning Zhang

TITLE OF PROPOSAL: Enhancing the Infrastructure of Engineering Heat Flow Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 3 (of 6 points)
C.2 0 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
B.2 8 (of 15 points)
B.3 12 (of 20 points)
B.4 1 (of 5 points)
B.5 2 (of 2 points)
B.6 1 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 8 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes _____ No X

H. Total Score:

54

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$111,679
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This goal of the PIs is to replace old classroom equipment; however, nowhere in the proposal is it described why the selected equipment is the right choice or how it will be used. The impact on students' education is not clearly described. The PIs should revise the proposal to add details regarding how the equipment will be used in different courses and present a more detailed implementation plan before funding can be recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 029ENGB-09

INSTITUTION: Nicholls State University

PRINCIPAL INVESTIGATOR: Henry Foust

TITLE OF PROPOSAL: Distinguishing Between Crystalline and Amorphous
Materials Utilizing Two Models Based on Elastic Behavior

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**
(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 5 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 50 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 3 (of 5 points)
B.2 8 (of 15 points)
B.3 8 (of 20 points)
B.4 1 (of 5 points)
B.5 2 (of 2 points)
B.6 1 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 7 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 1 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$65,955
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The PI wrote this proposal to obtain funds to replace old equipment, but it lacks detail. For example, it is not clear who will attend the seminars or how many students are expected to take the courses listed, and the institutional description provides few important details. It would have been helpful if the PI had presented a much better picture of how this piece of equipment would be used in the classroom. The panel recommends that this proposal not be funded in its present form. The applicant should revise the proposal to include more detail, describing how many students are expected to use the equipment in different courses and how it will be used.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 030ENGB-09

INSTITUTION: Northwestern State University

PRINCIPAL INVESTIGATOR: Rafiqul Islam

TITLE OF PROPOSAL: Biomedical Signal Processing and Instrumentations

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 6 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 10 (of 15 points)
 B.3 12 (of 20 points)
 B.4 3 (of 5 points)
 B.5 2 (of 2 points)
 B.6 2 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes _____ No X

H. Total Score: 65 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$89,839</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel recommends that the PIs submit a better thought out and more detailed plan for their suggested new courses before requesting equipment for them. The proposal provides little evidence that the equipment to be purchased is the right equipment for the enhancement of the EET curriculum. This proposal should be revised to explain the need for the requested equipment in more detail before funding can be recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 031ENGB-09

INSTITUTION: Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Chun-Ling Huang

TITLE OF PROPOSAL: Enhancement of Fluid Mechanics and Machinery Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes No X
 A.2 4 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 6 (For S/E)
 or (of 10 points)
 E.2b (For NS/NE)

H. Total Score: 56 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 8 (of 15 points)
 B.3 10 (of 20 points)
 B.4 1 (of 5 points)
 B.5 2 (of 2 points)
 B.6 1 (of 5 points)
 B.7 Yes X No

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 1 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY **Requested Amount:** \$65,538
RECOMMENDATIONS: **Recommended Amount** \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal does not contain a description of how the specified equipment will be used in the classroom. The implementation plan is weak, and there is no description of planned experiments. The proposal does not describe the existing equipment. The panel believes that the idea, as presented, is good, but the PIs need to develop and detail a much better enhancement plan before funding can be recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 032ENGB-09

INSTITUTION: Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Amitava Jana

TITLE OF PROPOSAL: The Enhancement of Measurements, Mechatronics, and Control Laboratories of Mechanical Engineering Department

A. The Current Situation
(Total of 10 Points)

A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)
C.1 6 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 7 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan
(Total of 52 Points)

B.1 5 (of 5 points)
B.2 13 (of 15 points)
B.3 17 (of 20 points)
B.4 4 (of 5 points)
B.5 2 (of 2 points)
B.6 3 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)
D.1 10 (of 12 points)

F. Additional Funding Source

(Total of 4 Points)
F.1 2 (of 4 points)

G. Previous Support Fund Awards

(No Points Assigned)
G.1 Yes X No _____

H. Total Score: 84 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

		<u>YEAR 1</u>	<u>YEAR 2</u>
SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	<u>\$83,387</u>	<u>\$0</u>
	Recommended Amount:	<u>\$73,387</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This is a very well-written proposal in which use of the specified equipment is clearly described and the detailed plan for laboratory improvement is convincing. The panel recommends partial funding of \$73,387, minus the \$10,000 for installation. The pledged institutional match should be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 033ENGB-09

INSTITUTION: Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Patrick Mensah

TITLE OF PROPOSAL: Enhancement of Renewable Energy Research and Education
in Mechanical Engineering Through the Acquisition of
Automotive Diesel Engine System

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 0 (of 1 point)
C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 6 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 54 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
B.2 9 (of 15 points)
B.3 10 (of 20 points)
B.4 1 (of 5 points)
B.5 2 (of 2 points)
B.6 1 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 9 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 0 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$144,473
RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel is not clear regarding why a diesel engine is necessary to support the research of the PIs, which seems to be in completely different areas than that of the proposal. We question seriously if the equipment specified is the right type for this group of researchers. The PIs indicate that it will be used for teaching, but a detailed plan of how it will be used is missing. It is also unclear how the specified diesel engine will help the PIs gain additional external funding, as they claim. The panel agrees that the proposal should be revised to present a more detailed enhancement plan and justification for the specified equipment. No funding is recommended for the project.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 034ENGB-09

INSTITUTION: Southern University and A&M College - Baton Rouge

PRINCIPAL INVESTIGATOR: Hak-chul Shin

TITLE OF PROPOSAL: Acquisition of Construction Material Testing Equipments

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 6 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 9 (of 15 points)
 B.3 10 (of 20 points)
 B.4 1 (of 5 points)
 B.5 1 (of 2 points)
 B.6 1 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 8 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 55 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$73,471</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The enhancement plan is weak because it lacks details. The panel has many questions that are unanswered by the narrative. The biggest unknown in this project is how the equipment will be used. There was no data acquisition system specified. The panel members do not know how the sensors will be recorded and what the purpose of a high-speed video camera is. There are just too many unknowns to warrant a recommendation to fund proposals such as this that lack important details by means of which any evaluation panel should make decisions.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 035ENGB-09

INSTITUTION: Tulane University

PRINCIPAL INVESTIGATOR: Ronald Anderson

TITLE OF PROPOSAL: Innovations in Biomedical Engineering Design and Analysis

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
A.2 5 (of 5 points)
A.3 5 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
E.2a 8 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
B.2 13 (of 15 points)
B.3 15 (of 20 points)
B.4 4 (of 5 points)
B.5 2 (of 2 points)
B.6 3 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source

(Total of 4 Points)

F.1 3 (of 4 points)

G. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes X No _____

H. Total Score:

82

 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$125,700</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$103,500</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This is a very well-written proposal for which the panel recommends partial funding of \$103,500. We believe that the cost of software and part of the cost of supplies (except for the cell-tissue supplies), a total of \$22,200, should be the responsibility of the institution, and that the original pledged institutional match should be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 036ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Cherif Aissi

TITLE OF PROPOSAL: An Embedded Control System Laboratory for Undergraduate
Instruction and Research

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 4 (of 5 points)
A.3 4 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**
(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 6 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 72 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 4 (of 5 points)
B.2 12 (of 15 points)
B.3 15 (of 20 points)
B.4 3 (of 5 points)
B.5 1 (of 2 points)
B.6 2 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 10 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 1 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u> \$90,920 </u>
RECOMMENDATIONS:	Recommended Amount	<u> \$71,420 </u> (if additional funds become available)

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

There is limited information about course and curricular changes in this proposal's narrative. Since the PIs have a well-equipped laboratory, they should do a much better job of describing the impact of the improvements requested. It is unclear to the panel how many students would be exposed to the improvements or what they would gain. There is an excellent institutional match, however, and the PIs have very good connections to industry. If additional money becomes available, the panel recommends \$71,420 for this project, with the graduate student salary, supplies, travel and shipping costs to be borne by the institution. The pledged institutional match should also be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 037ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Suren Dwivedi

TITLE OF PROPOSAL: Enhancement of Undergraduate Engineering Laboratory
and Curriculum for Product Using Virtual Reality

A. The Current Situation
(Total of 10 Points)

A.1 Yes X No _____
A.2 3 (of 5 points)
A.3 3 (of 5 points)

C. Equipment

(Total of 10 Points)
C.1 4 (of 6 points)
C.2 1 (of 1 point)
C.3 0 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 7 (For S/E)
or _____ (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 67 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)

B.1 4 (of 5 points)
B.2 10 (of 15 points)
B.3 12 (of 20 points)
B.4 5 (of 5 points)
B.5 2 (of 2 points)
B.6 2 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	YEAR 1	YEAR 2
	Recommended Amount:	<u>\$110,751</u>	<u>\$49,231</u>
		<u>\$0</u>	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

It is obvious to the panel that the project team members are convinced that the concept of product realization at the undergraduate level is quite important. They are well qualified to conduct work in this area. The proposed match (both institutional and external) is very good. However, the panel members are in agreement that the development of the concept is not sufficiently detailed in the proposal to convince us that the goals and objectives are indeed attainable, and we do not recommend funding.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 038ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: William Emblom

TITLE OF PROPOSAL: Mechanical Engineering and Manufacturing Curricula Using
Experimental and Virtual Tools--Specifically Metal Forming

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 9 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 15 (of 15 points)
 B.3 18 (of 20 points)
 B.4 4 (of 5 points)
 B.5 1 (of 2 points)
 B.6 5 (of 5 points)
 B.7 Yes _____ No X

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source

(Total of 4 Points)

F.1 0 (of 4 points)

G. Previous Support Fund Awards

(No Points Assigned)

G.1 Yes X No _____

H. Total Score: 87 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY RECOMMENDATIONS:	Requested Amount:	YEAR 1	YEAR 2
	Recommended Amount:	<u>\$93,000</u>	<u>\$12,000</u>
		<u>\$79,000</u>	<u>\$12,000</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal is recommended for partial funding of \$79,000 in year 1 and the full amount of \$12,000 in year 2. The panel finds the objectives of the well-drafted proposal to be focused and achievable. However, due to limited funds we recommend that the university bear the costs for one year of graduate and undergraduate student support, and the requested materials and supplies, a total reduction of \$14,000, in addition to maintaining the pledged institutional match.

RATING FORM FOR ENHANCEMENT REQUESTS OTHER THAN EQUIPMENT PURCHASES

PROPOSAL NUMBER: 039ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Jerry Keska

TITLE OF PROPOSAL: Development of Laboratory Experiments for Undergraduate Instrumentation and Measurements Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Faculty and Staff Expertise

(Total of 12 Points)

C.1 12 (of 12 points)

D. Economic and/or Cultural Development and Impact

(Total of 12 Points)

D.1 1 (of 2 points)
 D.2a (For S/E)
 or (of 10 points)
 D.2b 3 (For NS/NE)

B. The Enhancement Plan

(Total of 62 Points)

B.1 4 (of 5 points)
 B.2 16 (of 20 points)
 B.3 12 (of 25 points)
 B.4 5 (of 5 points)
 B.5 1 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

E. Additional Funding Source:

(Total of 4 Points)

E.1 2 (of 4 points)

F. Previous Support Fund Award:

(No Points Assigned)

F.1 Yes X No _____

G. Total Score: 68 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$30,135</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$0</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel understands the need for improving laboratory equipment as well as the need for course development. However, the research team did not fully address how the proposed changes would be assessed and their potential impact on the program. Most of the requested support is for the PI, the graduate student, and the undergraduate student. While the institutional match is reasonable, the project itself should be restructured to involve innovative techniques and outcomes. No funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 040ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Ahmed Khattab

TITLE OF PROPOSAL: Acquisition of Laser Light Diffraction Analysis System for Nano/Micro Materials

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 4 (of 5 points)
A.3 4 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact
(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 7 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 85 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 5 (of 5 points)
B.2 14 (of 15 points)
B.3 15 (of 20 points)
B.4 4 (of 5 points)
B.5 1 (of 2 points)
B.6 5 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 12 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 4 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes _____ No X

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$65,978</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$50,978</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This is a well-drafted proposal that is focused, with goals that are achievable. However, the panel believes that the university should provide the graduate student support requested (\$15,000). The panel recommends partial funding of \$50,978 for the project and maintenance of the pledged

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 041ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Ahmed Khattab

TITLE OF PROPOSAL: Acquisition of Fused Deposition Modeling Rapid Prototyping System

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 8 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 10 (of 15 points)
 B.3 10 (of 20 points)
 B.4 2 (of 5 points)
 B.5 1 (of 2 points)
 B.6 1 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes _____ No X

H. Total Score: 67 (of 100 points)

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$84,774
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The review panel recognizes the benefits of rapid prototyping and its potential impact on engineering education. However, the panel feels that the impact on the curriculum, its students, and the program are quite limited because the proposed equipment would only replace existing equipment. The panel advises the PIs to investigate an external match for this project and/or start an equipment replacement pool through their fee-for-service activities. No funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 042ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: Gholam Massiha

TITLE OF PROPOSAL: Robotics Systems for Enhancing Automation and
Manufacturing Technology Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 3 (of 5 points)
 A.3 1 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 4 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 4 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 63 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 12 (of 15 points)
 B.3 12 (of 20 points)
 B.4 4 (of 5 points)
 B.5 2 (of 2 points)
 B.6 0 (of 5 points)
 B.7 Yes _____ No X

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes _____ No X

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$78,677
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

This proposal is not recommended for funding. Although the panel finds merit in both automation and manufacturing, the goals and objectives described in the proposal are unrealistic. The PIs should investigate the possibility of collaborating with industrial partners to obtain or at least reduce the cost of the proposed equipment.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 043ENGB-09

INSTITUTION: University of Louisiana at Lafayette

PRINCIPAL INVESTIGATOR: R. Devesh Misra

TITLE OF PROPOSAL: Thermal Analysis System to Enhance Polymeric Materials
Science and Engineering Teaching and Research

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 4 (For S/E)
 or (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 74 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 12 (of 15 points)
 B.3 12 (of 20 points)
 B.4 3 (of 5 points)
 B.5 1 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$147,675</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$147,675</u> (if additional funds become available)

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel appreciates this proposal because it represents the trends in both research and pedagogy in materials science. The research team is strong and the proposed project would provide new capabilities for their research program. Regretably, because of very limited funds in this competition and other strong proposals and because the panel believes there is no way to successfully reduce the budget, this proposal should be fully funded (\$147,675) only if additional funds become available.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 044ENGB-09

INSTITUTION: University of Louisiana at Monroe

PRINCIPAL INVESTIGATOR: Sami Nazzal

TITLE OF PROPOSAL: High-Pressure Homogenizer and Delivery Module for the
Manufacture of Solid Lipid Nanoparticles (SLN)

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 3 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 64 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 8 (of 15 points)
 B.3 9 (of 20 points)
 B.4 3 (of 5 points)
 B.5 2 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes _____ No X

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 4 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$30,150
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The University of Louisiana at Monroe pharmacy faculty submitted this proposal to enhance equipment at the pharmacy school. It is not surprising that the backgrounds of the entire project team are in the pharmaceutical sciences. Although the panel recognizes the benefits of research in the field of nanotechnology, we find that submission to Natural Sciences-Biological taxonomy would fit this proposal better than Engineering B. No funding is recommended.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 045ENGB-09

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Martin Guillot

TITLE OF PROPOSAL: Fluid Mechanics Laboratory Modernization

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 3 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 58 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 3 (of 5 points)
 B.2 9 (of 15 points)
 B.3 5 (of 20 points)
 B.4 2 (of 5 points)
 B.5 1 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 11 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY RECOMMENDATIONS: Requested Amount: \$156,134
 Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel recognizes the need of modernizing laboratories and understands the benefits gained through course maintenance, but we agree that much more detail should be presented in relation to the impact of this project on the department, students and curricula. Additionally, the importance of the proposed area of work is not evidenced by the relatively low institutional match. The panel does not recommend funding for this project

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 046ENGB-09

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Paul Schilling

TITLE OF PROPOSAL: Enhancement of Micro-CT Laboratory

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 3 (of 3 points)

E. Economic and/or Cultural Development and Impact

(Total of 12 Points)

E.1 2 (of 2 points)
 E.2a 6 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 77 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 5 (of 5 points)
 B.2 10 (of 15 points)
 B.3 15 (of 20 points)
 B.4 4 (of 5 points)
 B.5 2 (of 2 points)
 B.6 4 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 10 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 2 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY	Requested Amount:	<u>\$297,000</u>
RECOMMENDATIONS:	Recommended Amount	<u>\$247,000</u>

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The proposal by PIs from the Department of Mechanical Engineering at UNO is recommended for partial funding of \$247,000. The panel agrees that the goals and objectives of the well-conceived and well-drafted proposal are achievable. However, as we have recommended for almost all of the 14 proposals that will have funding recommendations this year, the institution should bear the cost of fixturing, salaries, travel and supplies (totaling \$50,000), and the institutional match should be maintained.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 047ENGB-09

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Leonard Spinu

TITLE OF PROPOSAL: Acquisition of an EverCool Dewar for Existing SQUID
Magnetometer for Novel Nanomaterials Investigation

A. The Current Situation

(Total of 10 Points)

A.1 Yes X No _____
 A.2 4 (of 5 points)
 A.3 4 (of 5 points)

C. Equipment

(Total of 10 Points)

C.1 5 (of 6 points)
 C.2 1 (of 1 point)
 C.3 2 (of 3 points)

**E. Economic and/or Cultural
Development and Impact**

(Total of 12 Points)

E.1 1 (of 2 points)
 E.2a 3 (For S/E)
 or _____ (of 10 points)
 E.2b _____ (For NS/NE)

H. Total Score: 68 (of 100 points)

B. The Enhancement Plan

(Total of 52 Points)

B.1 4 (of 5 points)
 B.2 10 (of 15 points)
 B.3 15 (of 20 points)
 B.4 2 (of 5 points)
 B.5 2 (of 2 points)
 B.6 3 (of 5 points)
 B.7 Yes X No _____

D. Faculty and Staff Expertise

(Total of 12 Points)

D.1 12 (of 12 points)

F. Additional Funding Source:

(Total of 4 Points)

F.1 0 (of 4 points)

G. Previous Support Fund Awards:

(No Points Assigned)

G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY Requested Amount: \$135,000
 RECOMMENDATIONS: Recommended Amount \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

The panel agrees that the backgrounds of the PIs from AMRI at the University of New Orleans are more aligned with the physical sciences than engineering. In addition, no new capabilities would be gained through acquisition of the requested equipment. Although we recognize the benefits of multi-disciplinary research, this proposal is better suited for submission in the Natural Sciences-Physical disciplines than in Engineering B.

RATING FORM FOR ENHANCEMENT INSTRUCTIONAL AND RESEARCH EQUIPMENT REQUESTS

PROPOSAL NUMBER: 048ENGB-09

INSTITUTION: University of New Orleans

PRINCIPAL INVESTIGATOR: Kevin Stokes

TITLE OF PROPOSAL: Acquisition of a Spectroscopic Ellipsometer for Research and Education in Optical Materials

A. The Current Situation
(Total of 10 Points)
A.1 Yes X No _____
A.2 4 (of 5 points)
A.3 4 (of 5 points)

C. Equipment
(Total of 10 Points)
C.1 5 (of 6 points)
C.2 1 (of 1 point)
C.3 2 (of 3 points)

E. Economic and/or Cultural Development and Impact
(Total of 12 Points)
E.1 1 (of 2 points)
E.2a 3 (For S/E)
or (of 10 points)
E.2b _____ (For NS/NE)

H. Total Score: 67 (of 100 points)

B. The Enhancement Plan
(Total of 52 Points)
B.1 4 (of 5 points)
B.2 10 (of 15 points)
B.3 15 (of 20 points)
B.4 1 (of 5 points)
B.5 2 (of 2 points)
B.6 3 (of 5 points)
B.7 Yes X No _____

D. Faculty and Staff Expertise
(Total of 12 Points)
D.1 12 (of 12 points)

F. Additional Funding Source:
(Total of 4 Points)
F.1 0 (of 4 points)

G. Previous Support Fund Awards:
(No Points Assigned)
G.1 Yes X No _____

(Note: Proposals with a total score below 70 will not be recommended for funding)

SPECIFIC BUDGETARY RECOMMENDATIONS: Requested Amount: \$131,050
Recommended Amount: \$0

COMMENTS: (Discuss proposal strengths and weaknesses, particularly in those sections where significant point deductions have been made. Include suggestions for resubmission. For proposals recommended for funding, include all applicable stipulations in budgets and scopes of work)

As was the case in the previous proposal from researchers in UNO's AMRI, the panel is in consensus that the backgrounds of the PIs and the proposed work are more aligned with science than engineering. Although we recognize the benefits from multidisciplinary research, we again agree that this type of proposal should be submitted to the Natural Sciences-Physical discipline for funding consideration.

APPENDIX A

Summary of Proposals

**Proposals Submitted to the
Traditional Enhancement Program - Engineering B
for the FY 2008-09 Review Cycle**

Proposal Number	PI Name	Institution	Duration	Equipment/Non Equipment	New/Continuation	Project Title	Amount Requested		
							Year 1 -----	Year2 -----	Total
001ENGB-09	Boldor,Dorin	Louisiana State University And A&M College - Agricultural Center	2 Years	Primary Equipment Proposal	New Request	Acquisition of Equipment to Enhance the Bioenergy- and Nanotechnology- Targeted Bioprocessing Research Capability of Biological and Agricultural Engineering	\$290,367.00	\$0.00	\$290,367.00
002ENGB-09	Wu,Qinglin	Louisiana State University And A&M College - Agricultural Center	1 Year	Primary Equipment Proposal	New Request	Enhancing R&D Capability for Creating and Characterizing Microcellular Structured Materials in Sustainable Engineering Composite Research	\$146,840.00	\$0.00	\$146,840.00
003ENGB-09	Acharya,Sumanta	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Particle and Species Analysis Equipment in High-Temperature (Combustion) Environments	\$225,000.00	\$0.00	\$225,000.00
004ENGB-09	Cai,Steve C. S.	Louisiana State University	1 Year	Primary Equipment Proposal	New Request	Acquiring a Distributed Fiber Optic Sensing	\$120,000.00	\$0.00	\$120,000.00

		And A&M College - Baton Rouge				System for Enhancement of Research and Education Related to Infrastructure Materials and Industrial Composite Materials			
005ENGB-09	Goettert, Jost	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Laser Writer	\$240,000.00	\$0.00	\$240,000.00
006ENGB-09	Guo, Shengmin	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	A ROBOT MANIPULATOR FOR A PLASMA SPRAY SYSTEM AND MECHANICAL ENGINEERING EDUCATION	\$99,880.00	\$0.00	\$99,880.00
007ENGB-09	Harvey, Craig	Louisiana State University And A&M College - Baton Rouge	2 Years	Not A Equipment Proposal	New Request	Enhancing Undergraduate Construction Management Recruiting and Education through Hands-on Construction Curriculum Materials	\$108,398.00	\$52,406.00*	\$160,804.00
008ENGB-09	Jin, Rongying	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Large and Clean Single Crystal Growth via an Image Furnace for Multidisciplinary Materials Research and Education	\$282,000.00	\$0.00	\$282,000.00

009ENGB-09	Losovyj, Yaroslav	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Enhancement of Nanophase Materials Characterization System at 3m NIM Beamline at CAMD	\$259,680.00	\$0.00	\$259,680.00
010ENGB-09	Meng, Wen	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Acquisition of an integrated energy dispersive spectroscopy (EDS) and electron backscattering diffraction system (EBSD) for multidisciplinary materials research and education	\$140,000.00	\$0.00	\$140,000.00
011ENGB-09	Morikawa, Eizi	Louisiana State University And A&M College - Baton Rouge	2 Years	Primary Equipment Proposal	New Request	Soft-X-ray Spectroscopy at LSU-CAMD; Enhancing Users' Research Capabilities With a Mirror and a Window	\$183,575.00	\$0.00	\$183,575.00
012ENGB-09	Nikitopoulos, Dimitris	Louisiana State University And A&M College - Baton Rouge	1 Year	Primary Equipment Proposal	New Request	A digital holographic particle image velocimetry and visualization system	\$195,000.00	\$0.00	\$195,000.00
013ENGB-09	Roy, Amitava	Louisiana State University And A&M College - Baton Rouge	2 Years	Primary Equipment Proposal	New Request	Hard X-Rays for Materials Science at CAMD	\$272,246.00	\$0.00	\$272,246.00
014ENGB-09	Singh, Varshni	Louisiana State	1 Year	Primary Equipment	New Request	State-of-the-art Atomic Force	\$261,426.00	\$0.00	\$261,426.00

		University And A&M College - Baton Rouge		Proposal		Microscope (AFM) with Nano-TA			
015ENGB-09	Boucher, Gary	Louisiana State University And A&M College - Shreveport	1 Year	Primary Equipment Proposal	New Request	SMT COMPONENT PLACEMENT SYSTEM FOR UNDERGRADUATE STUDENT TRAINING	\$25,045.00	\$0.00	\$25,045.00
016ENGB-09	Chiu, Alan	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	High Density EEG/ERP 3D Visualization Lab	\$72,000.00	\$0.00	\$72,000.00
017ENGB-09	Crittenden, Kelly	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Advanced Manufacturing and Prototyping with 5-axis Computer Controlled Machining.	\$78,155.00	\$0.00	\$78,155.00
018ENGB-09	Davis, Despina	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Energy-Dispersive X-ray Fluorescence Analyzer (EDXRF): An Enhancement of Graduate and Undergraduate Education Through Practical Research Training	\$59,975.00	\$0.00	\$59,975.00
019ENGB-09	Gunasekaran, Alfred	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Enhancement of Graduate Education in Materials Characterization by Non-destructive Interferometric Method	\$57,108.00	\$0.00	\$57,108.00
020ENGB-09	Ker, Jun-Ing	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Enhancement of Industrial Ergonomics	\$59,358.00	\$0.00	\$59,358.00

						Laboratory			
021ENGB-09	McKinney,Ralph	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Enhancement of Undergraduate Materials Testing	\$63,775.00	\$0.00	\$63,775.00
022ENGB-09	O'Neal,Dennis	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Nanotechnology Lab Enhancement For Biomedical Nanoparticle Manufacture Education	\$65,549.00	\$0.00	\$65,549.00
023ENGB-09	Sit,Ping-Fai	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Mechanical Testing and Characterization Laboratory of Biological Materials	\$100,000.00	\$0.00	\$100,000.00
024ENGB-09	Tims,Heath	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Enhancing Product Development through a Reverse Engineering Lab	\$42,000.00	\$0.00	\$42,000.00
025ENGB-09	Weiss,Leland	Louisiana Tech University	1 Year	Primary Equipment Proposal	New Request	Internal Combustion Engine Research and Development Laboratory Enhancement	\$18,073.00	\$0.00	\$18,073.00
026ENGB-09	Chandra,Pankaj	McNeese State University	1 Year	Primary Equipment Proposal	New Request	Development of A Pipe Stress Analysis Training Laboratory	\$51,460.00	\$0.00	\$51,460.00
027ENGB-09	Li,Zhuang	McNeese State University	1 Year	Primary Equipment Proposal	New Request	Enhancement of Dynamics of Machinery	\$101,250.00	\$0.00	\$101,250.00
028ENGB-09	Zhang,Ning	McNeese State University	1 Year	Primary Equipment Proposal	New Request	Enhancing the Infrastructure of Engineering Heat Flow Laboratory	\$111,679.00	\$0.00	\$111,679.00
029ENGB-09	Foust,Henry	Nicholls State University	1 Year	Primary Equipment Proposal	New Request	Distinguishing between Crystalline and Amorphous Materials utilizing	\$65,955.00	\$0.00	\$65,955.00

						two models based on Elastic Behavior			
030ENGB-09	Islam,Rafiqul	Northwestern State University	1 Year	Primary Equipment Proposal	New Request	Biomedical Signal Processing and Instrumentations	\$89,839.00	\$0.00	\$89,839.00
031ENGB-09	Huang,Chun-Ling	Southern University and A&M College at Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Enhancement of Fluid mechanics and Machinery Laboratory	\$65,538.00	\$0.00	\$65,538.00
032ENGB-09	Jana,Amitava	Southern University and A&M College at Baton Rouge	2 Years	Primary Equipment Proposal	New Request	The Enhancement of Measurements, Mechatronics and Control Laboratories of Mechanical Engineering Department	\$83,387.00	\$0.00	\$83,387.00
033ENGB-09	Mensah,Patrick	Southern University and A&M College at Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Enhancement of Renewable Energy research and Education in Mechanical Engineering through the Acquisition of Automotive Diesel Engine System	\$144,473.00	\$0.00	\$144,473.00
034ENGB-09	Shin,Hak-chul	Southern University and A&M College at Baton Rouge	1 Year	Primary Equipment Proposal	New Request	Acquisition of Construction Material Testing Equipments	\$73,471.00	\$0.00	\$73,471.00
035ENGB-09	Anderson,Ronald	Tulane University	1 Year	Primary Equipment Proposal	New Request	Innovations In Biomedical Engineering Design And Analysis	\$125,700.00	\$0.00	\$125,700.00
036ENGB-09	Aissi,Cherif	University of Louisiana at Lafayette	1 Year	Primary Equipment Proposal	New Request	An embedded Control System Laboratory for	\$90,920.00	\$0.00	\$90,920.00

						Undergraduate Instruction and Research			
037ENGB-09	Dwivedi,Suren	University of Louisiana at Lafayette	2 Years	Primary Equipment Proposal	New Request	Enhancement of Undergraduate Engineering Laboratory and Curriculum for Product using Virtual Reality	\$110,751.00	\$49,231.00	\$159,982.00
038ENGB-09	Emblom,William	University of Louisiana at Lafayette	2 Years	Primary Equipment Proposal	New Request	Mechanical Engineering and Manufacturing Curricula using Experimental and Virtual Tools - Specifically Metal Forming	\$93,000.00	\$12,000.00	\$105,000.00
039ENGB-09	Keska,Jerry	University of Louisiana at Lafayette	1 Year	Not A Equipment Proposal	New Request	Development of Laboratory Experiments for Undergraduate Instrumentation and Measurements Laboratory	\$30,135.00	\$0.00	\$30,135.00
040ENGB-09	Khattab,Ahmed	University of Louisiana at Lafayette	1 Year	Primary Equipment Proposal	New Request	Acquisition of Laser Light Diffraction Analysis System for Nano/Micro Materials	\$65,978.00	\$0.00	\$65,978.00
041ENGB-09	Khattab,Ahmed	University of Louisiana at Lafayette	1 Year	Primary Equipment Proposal	New Request	Acquisition of Fused Deposition Modeling Rapid Prototyping System	\$84,774.00	\$0.00	\$84,774.00
042ENGB-09	Massiha,Gholam	University of Louisiana at Lafayette	1 Year	Primary Equipment Proposal	New Request	Robotics System for Enhancing Automation and Manufacturing	\$78,677.00	\$0.00	\$78,677.00

						Technology Laboratory			
043ENGB-09	Misra,R. Devesh	University of Louisiana at Lafayette	1 Year	Primary Equipment Proposal	New Request	Thermal Analysis System to Enhance Polymeric Materials Science and Engineering Teaching and Research	\$147,675.00	\$0.00	\$147,675.00
044ENGB-09	Nazzal,Sami	University of Louisiana at Monroe	1 Year	Primary Equipment Proposal	New Request	High-Pressure Homogenizer and Delivery Module for the Manufacture of Solid Lipid Nanoparticles (SLN)	\$30,150.00	\$0.00	\$30,150.00
045ENGB-09	Guillot,Martin	University of New Orleans	1 Year	Primary Equipment Proposal	New Request	Fluid Mechanics Laboratory Modernization	\$156,134.00	\$0.00	\$156,134.00
046ENGB-09	Schilling,Paul	University of New Orleans	1 Year	Primary Equipment Proposal	New Request	Enhancement of Micro-CT Laboratory	\$297,000.00	\$0.00	\$297,000.00
047ENGB-09	Spinu,Leonard	University of New Orleans	1 Year	Primary Equipment Proposal	New Request	Acquisition of an EverCool Dewar for Existing SQUID Magnetometer for Novel Nanomaterials Investigation	\$135,000.00	\$0.00	\$135,000.00
048ENGB-09	Stokes,Kevin	University of New Orleans	1 Year	Primary Equipment Proposal	New Request	Acquisition of a Spectroscopic Ellipsometer for Research and Education in Optical Materials	\$131,050.00	\$0.00	\$131,050.00

* **The Enhancement Program RFP restricts requests for 2nd-year funding to no more than \$50,000**

Total Number of Proposals submitted	48
Total Money Requested for First Year	\$5,829,446.00
Total Money Requested for Second Year	\$113,637.00
Total Money Requested	\$5,943,083.00

APPENDIX B

Rating Forms Used in This Competition

- 1. Equipment**
- 2. Non-equipment**

BOARD OF REGENTS SUPPORT FUND ENHANCEMENT PROGRAM, FISCAL YEAR 2008-09

RATING FORM FOR TRADITIONAL AND UNDERGRADUATE ENHANCEMENT PROPOSALS
PURCHASE OF INSTRUCTIONAL AND RESEARCH EQUIPMENT

INSTRUCTIONS: The completed evaluation form should represent the consensus of the expert members of the review panel and, as such, must reflect the final decisions of that panel. Review this form and the program guidelines prior to reading the proposal. The higher the score, the more clearly the proposal satisfies the criterion under consideration. Guidelines should not be interpreted to exclude from eligibility departments and/or units engaged solely in instruction. Use the white space provided to explain the panel's ratings, especially on items given low scores. Attach additional pages, as necessary.

A. THE CURRENT SITUATION--Total of 10 points

- YES _____ NO _____ A.1 Has the applicant adequately described the institution and unit(s)/department(s) that will benefit from the proposed project, especially in terms of mission, faculty, students, and relevant institutional or departmental resources?
- _____ of 5 pts. A.2 To what extent will the proposed project enhance the affected department(s) or unit(s)?
- _____ of 5 pts. A.3 To what extent will the project complement and improve upon existing resources of the department(s) or unit(s)?

COMMENTS:

B. THE ENHANCEMENT PLAN--Total of 52 points

- _____ of 5 pts. B.1 Are the goals and objectives clearly stated? Can the objectives be completed within the timeframe detailed in the proposal?
- _____ of 15 pts. B.2 Does the work plan sufficiently describe the activities that will be undertaken to achieve the goals and objectives of the proposal with responsible individuals listed for each activity, a schedule of activities with benchmarks to be accomplished, and a description detailing how each objective will be evaluated?
- _____ of 20 pts. B.3 To what extent will the proposed project catapult the department(s) or unit(s) into attaining a high level of regional, national, or international eminence--or maintaining a current high level of eminence--commensurate with degree offerings and/or functions?
- _____ of 5 pts. B.4 To what extent will the proposed project have an impact on the variety and quality of curricular offerings and instructional methods within the affected department(s) or unit(s)? Appropriate to current thinking in the specific field(s) or discipline(s) of the proposed project, is reform of undergraduate education and/or teacher preparation encouraged?
- _____ of 2 pts. B.5 To what extent will the proposed project enhance the ability of the department(s) or unit(s) to attract and/or retain students of high quality, particularly high quality students from Louisiana?
- _____ of 5 pts. B.6 To what extent will the project contribute to improving the quality and effectiveness of faculty teaching and improve faculty pedagogical practices within the context of current thinking on reform of undergraduate education and teacher preparation, specific to field(s) or discipline(s) of the proposed project?
- No Points Given, but this is a required component. B.7 Does the proposal indicate how the Board of Regents or other entity will determine whether or not the project has been a success and the degree to which it has achieved its goals?

COMMENTS:

C. EQUIPMENT--Total of 10 points

- _____ of 6 pts. C.1 To what extent has the proposal established a relationship between the enhancement plan and the items of equipment requested? Is the equipment well-justified? Will it significantly enhance the existing technological capability of the department? Does it reflect current and projected trends in technology?
- _____ of 1 pt. C.2 Has there been a thorough survey of the current equipment inventory and does the proposal plan to make full use of it?
- _____ of 3 pts. C.3 To what extent does the proposal present a reasonable plan to ensure a maximum usable lifetime for the equipment? Are housing and maintenance arrangements for equipment adequate?

COMMENTS:

D. FACULTY AND STAFF EXPERTISE--Total of 12 points

- _____ of 12 pts D.1 Are the faculty and support personnel appropriately qualified to implement this project? If special training will be required for faculty and/or other personnel, has an appropriate plan been developed?

COMMENTS:

E. ECONOMIC AND/OR CULTURAL DEVELOPMENT AND IMPACT--Total of 12 points

- _____ of 2 pts. E.1 To what extent will the project assist in establishing a new relationship, or strengthen an existing relationship, with one or more industrial/institutional sponsors (e.g., private business, trade organization, professional organization, non-profit or community organization, another university or consortium of universities, federal government agency)?

NOTE TO REVIEWER: Depending on the discipline of the submitting department or unit, provide rating points for either E.2a OR E.2b:

- _____ of 10 pts. E.2a For science/engineering proposals only: To what extent will the project assist the submitting department(s)/unit(s) in promoting or enhancing the economic development of the State of Louisiana?
- E.2b For non-science/non-engineering proposals only: To what extent will the project contribute to the academic and/or cultural resources of the State of Louisiana?

COMMENTS:

Proposal Number: _____

Principal Investigator: _____

F. ADDITIONAL FUNDING SOURCES--Total of 4 points

_____ of 4 pts. F.1 To what extent will the costs associated with this project be shared through contributions from the institution(s) involved and/or external organizations?

COMMENTS:

G. PREVIOUS SUPPORT FUND AWARDS--No points assigned

YES___ NO_____ G.1 If the Project Director or Co-Project Director has received previous Support Fund support, has it been adequately documented?

COMMENTS:

H. TOTAL SCORE (NOTE: Proposals with a total score below 70 will not be recommended for funding.)

_____ of 100 points

SPECIFIC BUDGETARY RECOMMENDATIONS

Requested Amount \$ _____ Recommended Amount \$ _____

COMMENTS:

=====
I agree to maintain in confidence any information, documentation and material of any kind (hereinafter referred to as "Material") included in this proposal; I further agree not to disclose, divulge, publish, file patent application on, claim ownership of, exploit or make any other use whatsoever of said "Material" without the written permission of the principal investigator. To the best of my knowledge, no conflict of interest is created as a result of my reviewing this proposal.

Reviewer's Name and Institution: _____

Reviewer's Signature: _____ Date: _____

**BOARD OF REGENTS SUPPORT FUND ENHANCEMENT PROGRAM, FISCAL YEAR 2008-09
RATING FORM FOR TRADITIONAL AND UNDERGRADUATE ENHANCEMENT PROPOSALS
REQUESTS OTHER THAN EQUIPMENT PURCHASES (e.g., Colloquia, Curricular Revisions, etc.)**

INSTRUCTIONS: The completed evaluation form should represent the consensus of the expert members of the review panel and, as such, must reflect the final decisions of that panel. Review this form and the program guidelines prior to reading the proposal. The higher the score, the more clearly the proposal satisfies the criterion under consideration. Guidelines should not be interpreted to exclude from eligibility departments and/or units engaged solely in instruction. Use the white space provided to explain the panel's ratings, especially on items given low scores. Attach additional pages, as necessary.

A. THE CURRENT SITUATION--Total of 10 points

- | | | |
|--------------------|-----|--|
| YES _____ NO _____ | A.1 | Has the applicant adequately described the institution and unit(s)/department(s) that will benefit from the proposed project, especially in terms of mission, faculty, students, and relevant institutional or departmental resources? |
| _____ of 5 pts. | A.2 | To what extent will the proposed project enhance the affected department(s) or unit(s)? |
| _____ of 5 pts. | A.3 | To what extent will the project complement and improve upon existing resources of the department(s) or unit(s)? |

COMMENTS:

B. THE ENHANCEMENT PLAN--Total of 62 points

- | | | |
|------------------|-----|---|
| _____ of 5 pts. | B.1 | Are the goals and objectives clearly stated? |
| _____ of 20 pts. | B.2 | Does the work plan sufficiently describe the activities that will be undertaken to achieve the goals and objectives of the proposal with responsible individuals listed for each activity, a schedule of activities with benchmarks to be accomplished, and a description detailing how each objective will be evaluated? |
| _____ of 25 pts. | B.3 | To what extent will the proposed project catapult the department(s) or unit(s) into attaining a high level of regional, national, or international eminence--or maintaining a current high level of eminence--commensurate with degree offerings and/or functions? |
| _____ of 5 pts. | B.4 | To what extent will the proposed project have an impact on the variety and quality of curricular offerings and instructional methods within the affected department(s) or unit(s)? Appropriate to current thinking in the specific field(s) or discipline(s) of the proposed project, is reform of undergraduate education and/or teacher preparation encouraged? |
| _____ of 2 pts. | B.5 | To what extent will the proposed project enhance the ability of the department(s) or unit(s) to attract and/or retain students of high quality, particularly high quality students from Louisiana? |
| _____ of 5 pts. | B.6 | To what extent will the project contribute to improving the quality and effectiveness of faculty teaching and improve faculty pedagogical practices within the context of current thinking on reform of undergraduate education and teacher preparation, specific to field(s) or discipline(s) of the proposed project? |

No Points Given,
But this is a required
component

B.7 Does the proposal indicate how the Board of Regents or other entity will determine whether or not the project has been a success and the degree to which it has achieved its goals?

COMMENTS:

B. FACULTY AND STAFF EXPERTISE--Total of 12 points

_____ of 12 pts

C.1 Are the faculty and support personnel appropriately qualified to implement this project? If special training will be required for faculty and/or other personnel, has an appropriate plan been developed?

COMMENTS:

D. ECONOMIC AND/OR CULTURAL DEVELOPMENT AND IMPACT--Total of 12 points

_____ of 2 pts.

D.1 To what extent will the project assist in establishing a new relationship, or strengthen an existing relationship, with one or more industrial/institutional sponsors (e.g., private business, trade organization, professional organization, non-profit or community organization, another university or consortium of universities, federal government agency)?

NOTE TO REVIEWER: Depending on the discipline of the submitting department or unit, provide rating points for either D.2a OR D.2b:

_____ of 10 pts.

D.2a For science/engineering proposals only: To what extent will the project assist the submitting department(s)/unit(s) in promoting or enhancing the economic development of the State of Louisiana?

D.2b For non-science/non-engineering proposals only: To what extent will the project contribute to the academic and/or cultural resources of the State of Louisiana?

COMMENTS:

E. ADDITIONAL FUNDING SOURCES--Total of 4 points

_____ of 4 pts.

E.1 To what extent will the costs associated with this project be shared through contributions from the institution(s) involved and/or external organizations?

COMMENTS:

F. PREVIOUS SUPPORT FUND AWARDS--No points assigned

YES__ NO__

F.1 If the Project Director or Co-Project Director has received previous Support Fund support, has it been adequately documented?

COMMENTS:

G. TOTAL SCORE (NOTE: Proposals with a total score below 70 will not be recommended for funding.)

_____ of 100 points

SPECIFIC BUDGETARY RECOMMENDATIONS

Requested Amount:\$ _____ Recommended Amount:\$ _____

COMMENTS:

=====

I agree to maintain in confidence any information, documentation and material of any kind (hereinafter referred to as "Material") included in this proposal; I further agree not to disclose, divulge, publish, file patent application on, claim ownership of, exploit or make any other use whatsoever of said "Material" without the written permission of the principal investigator. To the best of my knowledge, no conflict of interest is created as a result of my reviewing this proposal.

Reviewer's Name and Institution: _____

Reviewer's Signature: _____ Date: _____