BUDGET REQUEST FOR FISCAL YEAR ENDING JUNE 30, 2011

252-01

MSU - Center for Advanced Vehicular Systems AGENCY	ADDRESS	**		CHIEF EXECUTIVE OFFICER			
		Actual Expenses FY Ending June 30, 2009	Estimate Expenses FY Ending June 30, 2010	Requested for FY Ending June 30, 2011	Requeste Increase (+) or I FY 2011 vs. I (Col. 3 vs. 0	Decrease (-) FY 2010	
I. A. PERSONAL SERVICES					AMOUNT	PERCENT	
1. Salaries, Wages & Fringe Benefits (Base)		1,958,537	2,106,736	2,106,736	I		
a. Additional Compensation		_	_				
b. Proposed Vacancy Rate (Dollar Amount)					I		
c. Per Diem							
Total Salaries, Wages & Fringe Benefits	8	1,958,537	2,106,736	2,106,736			
2. Travel a. Travel & Subsistence (In-State)		19,831	21,000	21.000			
b. Travel & Subsistence (Out-of-State)		73,987	75,000	75,000			
c. Travel & Subsistence (Out-of-Country)		4,853	,	5,500			
Total Travel		98.671	101,500	101,500			
B. CONTRACTUAL SERVICES (Schedu	la P).	, 0,072	101,000	101,000			
a. Tuition, Rewards & Awards	ic D).	27,580	32,000	32,000			
b. Communications, Transportation & Utilities		3,714	4,150	4,150			
c. Public Information							
d. Rents		7,755	8,500	8,500			
e. Repairs & Service		40,463	50,500	105,500	55,000	108.91	
f. Fees, Professional & Other Services		95,220	101,085	101,085			
g. Other Contractual Services		80,356		90,325			
h. Data Processing		171,520		174,000			
i. Other		461,839	550,000	550,000			
Total Contractual Services		888,447	1,010,560	1,065,560	55,000	5.44%	
C. COMMODITIES (Schedule C):							
a. Maintenance & Construction Materials & Sup	plies	1,249	1,500	1,500			
b. Printing & Office Supplices & Materials		24,564	26,220	26,220			
c. Equipment, Repair Parts, Supplies & Accessor		237	300	300			
d. Professional & Scientific Supplies & Material	s	103 83,197	150 89,300	150 89,300			
e. Other Supplies & Materials Total Commodities		109,350		117,470			
D. CAPITAL OUTLAY:		109,350	11/,4/0	117,470			
1. Total Other Than Equipment (Schedu	ule D-1)	245,000	75,000	75,000			
2. Equipment (Schedule D-2):	,		,				
b. Road Machinery, Farm & Other Working E							
c. Office Machines, Furniture, Fixtures & Equ	•	5,330		8,000	21 222	20.460	
d. IS Equipment (Data Processing & Telecom e. Equipment - Lease Purchase	munications)	11,338	70,000	91,322	21,322	30.469	
f. Other Equipment		70,122	75,000	75,000			
Total Equipment (Schedule D-2)		86,790	,	174,322	21,322	13.93%	
3. Vehicles (Schedule D-3)		00,750	155,000	177,022	21,522	15.757	
4. Wireless Comm. Devices (Schedule D	1						
``````````````````````````````````````	,						
E. SUBSIDIES, LOANS & GRANTS (Sch	edule E):	228,362	245,000	245,000			
FOTAL EXPENDITURES		3,615,157	3,809,266	3,885,588	76,322	2.00%	
II. BUDGET TO BE FUNDED AS FOLLO	WS:						
Cash Balance-Unencumbered				2 00 7 700	76 202	2 000	
General Fund Appropriation (Enter General Fund La	pse Below)	3,615,157	3,809,266	3,885,588	76,322	2.009	
State Support Special Funds							
Federal Funds Other Special Funds (Specify) -							
Less: Estimated Cash Available Next Fiscal Period			ļ				
TOTAL FUNDS (equals Total Expenditures	above)	3,615,157	3,809,266	3,885,588	76,322	2.00%	
GENERAL FUND LAPSE		190,271					
III. PERSONNEL DATA							
Number of Positions Authorized in Appropriation Bill	a.) Full Perm b.) Full T-L	55	55	55			
	c.) Part Perm.						
	d.) Part T-L	2	2	2			
Average Annual Vacancy Rate (Percentage)	a.) Full Perm						
	b.) Full T-L						
	c.) Part Perm.						
	d.) Part T-L						
pproved by:			Submitted by:	Dr. Mark E. Keenum	1		
Official of Board or Commission				Name			
udget Officer: Mr. Michael McGrevey / mjm3	64@msstate.edu		Title:	President			

# Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2009 Actual Amount	% Of Line Item	% Of Total Budget	FY 2010 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2011 Requested Amount	% Of Line Item	% Of Total Budge
1. General	1,958,537		Buuget	2,106,736		Buuget	2,106,736		
State Support Special (Specify)	1,958,537	100.00%	-	2,100,730	100.00%	-	2,106,736	100.00%	-
2. Budget Contingency Fund			-			-			-
3. Education Enhancement Fund			-			-			-
4. Health Care Expendable Fund			-			-			-
5. Tobacco Control Fund			-			_			-
6. ARRA - Education, Disc., FMAP			-			_			-
7.			-			_			-
8. Federal Other Special (Specify)						_			
9.									
10.									
11.									
12.									
Total Salaries	1,958,537		54.17%	2,106,736		55.30%	2,106,736		54.21
1. General State Support Special (Specify)	98,671	100.00%		101,500	100.00%		101,500	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund						-			
6. ARRA - Education, Disc., FMAP			-			-			-
7.			-			-			1
			-			-			-
8. Federal Other Special (Specify)			-			-			-
9.			-			-			-
10.			-			_			-
11.			-			_			-
12.									
Total Travel	98,671		2.72%	101,500		2.66%	101,500		2.61
1. General State Support Special (Specify)	888,447	100.00%		1,010,560	100.00%		1,065,560	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7.									
8. Federal									
9. Other Special (Specify)			-			-			
10.			-			-			
11.			-			-			1
12.			-			-			
Total Contractual	888,447		24.57%	1,010,560		26.52%	1,065,560		27.42
			24.5770		100.000/	20.3270		100.000/	
1. General State Support Special (Specify)	109,350	100.00%	-	117,470	100.00%	_	117,470	100.00%	-
2. Budget Contingency Fund			-			_			
3. Education Enhancement Fund			-			_			-
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7.									
8. Federal Other Special (Specify)									
9. Other Special (Specify)									
10.									
11.									
12.									

# Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2009 Actual Amount	% Of Line Item	% Of Total Budget	FY 2010 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2011 Requested Amount	% Of Line Item	% Of Total Budget
1. General Susta Sussaid Sussial (Sussifie)	245,000				100.00%			100.00%	_
Ceneral State Support Special (Specify)     2. Budget Contingency Fund			-						
3. Education Enhancement Fund			-						
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7.			_						
8. Federal Other Special (Specify) ————————————————————————————————————			-						
10.			-						
11.			-						
12.			-						
Total Other Than Equipment	245,000		6.77%	75,000		1.96%	75,000		1.93%
1 General	86,790	100.00%		153,000	100.00%		174,322	100.00%	
State Support Special (Specify)     State Support Special (Specify)     Description				, - • •			. ,		
3. Education Enhancement Fund			-				<u> </u>		
4. Health Care Expendable Fund			-						
5. Tobacco Control Fund			-						
6. ARRA - Education, Disc., FMAP			-						
7.			-						
8 Federal			-						
9. Other Special (Specify)			-						
9. 10.			-						
11.			-						
11.			-						
Total Equipment	86,790		2.40%	153,000		4.01%	174,322		4.48%
	00,750		2.4070	155,000		4.01 /0	174,522		4.40 /(
1. General     State Support Special (Specify)			-						
2. Budget Contingency Fund			-						
3. Education Enhancement Fund			-						
4. Health Care Expendable Fund			-						
5. Tobacco Control Fund			-						
6. ARRA - Education, Disc., FMAP			-						
7. 8. Federal			-						
Other Special (Specify)			-						
9.			-						
10.			-						
11.			-						
12. Total Vehicles									
1. General         State Support Special (Specify)           2. Budget Contingency Fund			-						
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7.			-						
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Wireless Comm. Devices</b>			I T		1				

Specify Funding Sources As Shown Below	FY 2009 Actual Amount	% Of Line Item	% Of Total Budget	FY 2010 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2011 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	228,362	100.00%		245,000	100.00%		245,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7.									
8. Federal Other Special (Specify)			-						
9. 10.			-						
11.									
12.									
Total Subsidies, Loans & Grants	228,362		6.31%	245,000		6.43%	245,000		6.30%
1. General State Support Special (Specify)	3,615,157	100.00%	-	3,809,266	100.00%		3,885,588	100.00%	
2. Budget Contingency Fund			-						
3. Education Enhancement Fund			-						
4. Health Care Expendable Fund			-						
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7.									
8. Federal Other Special (Specify)									
9. Other Special (Specify)									
10.									
11.									
12.									
TOTAL	3,615,157		100.00%	3,809,266		100.00%	3,885,588		100.00%

4

Name of Agency

S. STATE SUPPORT SPECIAL FUNDS Source (Fund Number)	Detailed Description of Source	(1) Actual Revenues FY 2009	(2) Estimated Revenues FY 2010	(3) Requested Revenues FY 2011
Budget Contingency Fund	BCF - Budget Contingency Fund			
Education Enhancement Fund	EEF - Education Enhancement Fund			
Health Care Expendable Fund	HCEF - Health Care Expendable Fund			
Tobacco Control Fund	TCF - Tobacco Control Fund			
ARRA - Education, Discretionary, FMAP	ARRA - Education, Discretionary, FMAP			
	Section S TOTAL			

A. FEDERAL FUNDS* Source (Fund Number)	Ma		ntage tch rement FY 2011	(1) Actual Revenues FY 2009	(2) Estimated Revenues FY 2010	(3) Requested Revenues FY 2011
	Cash Balance-Unencumbered					
	Section A TOTAL					

B. OTHER SPECIAL FUNDS (NON-FED'L) Source (Fund Number)	Detailed Description of Source	(1) Actual Revenues FY 2009	(2) Estimated Revenues FY 2010	(3) Requested Revenues FY 2011
	Cash Balance-Unencumbered			
	Section B TOTAL			
			-	

### Section S + A + B TOTAL

C. TREASURY FUND/BANK ACCOUNTS*			(1) Reconciled	(2)	(3)
Name of Fund/Account	Fund/Account Number	Name of Bank (If Applicable)	Balance as of 6/30/09	Balance as of 6/30/10	Balance as of 6/30/11

* Any non-federal funds that have restricted uses must be identified and narrative of restrictions attached.

# NARRATIVE OF SPECIAL FUNDS DETAIL AND TREASURY FUND/BANK ACCOUNTS

MSU - Center for Advanced Vehicular Systems
Name of Agency

#### AGENCY

### Program No._____ of ____ Programs

### SUMMARY OF ALL PROGRAMS

### PROGRAM

	FY 2009 Actual						
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total		
Salaries, Wages, Fringe	1,958,537				1,958,537		
Travel	98,671				98,671		
Contractual Services	888,447				888,447		
Commodities	109,350				109,350		
Other Than Equipment	245,000				245,000		
Equipment	86,790				86,790		
Vehicles							
Wireless Comm. Devs.							
Subsidies, Loans & Grants	228,362				228,362		
Total	3,615,157				3,615,157		
No. of Positions (FTE)	57.00				57.00		

	FY 2010 Estimate						
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total		
Salaries, Wages, Fringe	2,106,736				2,106,736		
Travel	101,500				101,500		
Contractual Services	1,010,560				1,010,560		
Commodities	117,470				117,470		
Other Than Equipment	75,000				75,000		
Equipment	153,000				153,000		
Vehicles							
Wireless Comm. Devs.							
Subsidies, Loans & Grants	245,000				245,000		
Total	3,809,266				3,809,266		
No. of Positions (FTE)	57.00				57.00		

	FY 2011 Increase/Decrease for Continuation							
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total			
Salaries, Wages, Fringe								
Travel								
Contractual Services	55,000				55,000			
Commodities								
Other Than Equipment								
Equipment	21,322				21,322			
Vehicles								
Wireless Comm. Devs.								
Subsidies, Loans & Grants								
Total	76,322				76,322			
No. of Positions (FTE)								

AGENCY

Program No._____ of ____ Programs

SUMMARY OF ALL PROGRAMS

PROGRAM

		FY 2011 Expansion/Reduction of Existing Activities							
	(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total				
Salaries, Wages, Fringe									
Travel									
Contractual Services									
Commodities									
Other Than Equipment									
Equipment									
Vehicles									
Wireless Comm. Devs.									
Subsidies, Loans & Grants									
Total									
No. of Positions (FTE)									

	FY 2011 New Activities					
	(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total	
Salaries, Wages, Fringe						
Travel						
Contractual Services						
Commodities						
Other Than Equipment						
Equipment						
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants						
Total						
No. of Positions (FTE)						

	FY 2011 Total Request					
	(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total	
Salaries, Wages, Fringe	2,106,736				2,106,736	
Travel	101,500				101,500	
Contractual Services	1,065,560				1,065,560	
Commodities	117,470				117,470	
Other Than Equipment	75,000				75,000	
Equipment	174,322				174,322	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants	245,000				245,000	
Total	3,885,588				3,885,588	
No. of Positions (FTE)	57.00				57.00	

### SUMMARY OF PROGRAMS FORM MBR-1-03sum

MSU - Center for Advanced Vehicular Systems

Agency Name

### FUNDING REQUESTED FISCAL YEAR 2011

PROGRAM	GENERAL	ST.SUPP.SPECIAL	FEDERAL	OTHER SPECIAL	TOTAL
1. RESEARCH	3,206,013				3,206,013
2. PUBLIC SERVICE	679,575				679,575
SUMMARY OF ALL PROGRAMS	3,885,588				3,885,588

#### AGENCY

### Program No. 1 of 2 Programs

RESEARCH

PROGRAM

			FY 2009 Actual		
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	1,680,995			_	1,680,995
Travel	76,145				76,145
Contractual Services	840,444				840,444
Commodities	73,083				73,083
Other Than Equipment	245,000				245,000
Equipment	78,317				78,317
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	27,726				27,726
Total	3,021,710				3,021,710
No. of Positions (FTE)	55.00				55.00

	FY 2010 Estimate					
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total	
Salaries, Wages, Fringe	1,768,161				1,768,161	
Travel	93,000				93,000	
Contractual Services	925,560				925,560	
Commodities	109,970				109,970	
Other Than Equipment	72,500				72,500	
Equipment	147,500				147,500	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants	45,000				45,000	
Total	3,161,691				3,161,691	
No. of Positions (FTE)	55.00				55.00	

	FY 2011 Increase/Decrease for Continuation					
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total	
Salaries, Wages, Fringe						
Travel						
Contractual Services	33,000				33,000	
Commodities						
Other Than Equipment						
Equipment	11,322				11,322	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants						
Total	44,322				44,322	
No. of Positions (FTE)						

AGENCY

RESEARCH

PROGRAM

	FY 2011 Expansion/Reduction of Existing Activities						
	(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total		
Salaries, Wages, Fringe							
Travel							
Contractual Services							
Commodities							
Other Than Equipment							
Equipment							
Vehicles							
Wireless Comm. Devs.							
Subsidies, Loans & Grants							
Total							
No. of Positions (FTE)							

	FY 2011 New Activities						
	(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total		
Salaries, Wages, Fringe							
Travel							
Contractual Services							
Commodities							
Other Than Equipment							
Equipment							
Vehicles							
Wireless Comm. Devs.							
Subsidies, Loans & Grants							
Total							
No. of Positions (FTE)							

	FY 2011 Total Request					
	(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total	
Salaries, Wages, Fringe	1,768,161				1,768,161	
Travel	93,000				93,000	
Contractual Services	958,560				958,560	
Commodities	109,970				109,970	
Other Than Equipment	72,500				72,500	
Equipment	158,822				158,822	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants	45,000				45,000	
Total	3,206,013				3,206,013	
No. of Positions (FTE)	55.00				55.00	

#### AGENCY

### Program No. 2 of 2 Programs

PUBLIC SERVICE

PROGRAM

	FY 2009 Actual					
_	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total	
Salaries, Wages, Fringe	277,542				277,542	
Travel	22,526				22,526	
Contractual Services	48,003				48,003	
Commodities	36,267				36,267	
Other Than Equipment						
Equipment	8,473				8,473	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants	200,636				200,636	
Total	593,447				593,447	
No. of Positions (FTE)	2.00				2.00	

	FY 2010 Estimate					
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total	
Salaries, Wages, Fringe	338,575				338,575	
Travel	8,500				8,500	
Contractual Services	85,000				85,000	
Commodities	7,500				7,500	
Other Than Equipment	2,500				2,500	
Equipment	5,500				5,500	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants	200,000				200,000	
Total	647,575				647,575	
No. of Positions (FTE)	2.00				2.00	

	FY 2011 Increase/Decrease for Continuation					
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total	
Salaries, Wages, Fringe						
Travel						
Contractual Services	22,000				22,000	
Commodities						
Other Than Equipment						
Equipment	10,000				10,000	
Vehicles						
Wireless Comm. Devs.						
Subsidies, Loans & Grants						
Total	32,000				32,000	
No. of Positions (FTE)						

### PUBLIC SERVICE

PROGRAM

	FY 2011 Expansion/Reduction of Existing Activities									
	(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total					
Salaries, Wages, Fringe										
Travel										
Contractual Services										
Commodities										
Other Than Equipment										
Equipment										
Vehicles										
Wireless Comm. Devs.										
Subsidies, Loans & Grants										
Total										
No. of Positions (FTE)										

	FY 2011 New Activities									
	(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total					
Salaries, Wages, Fringe										
Travel										
Contractual Services										
Commodities										
Other Than Equipment										
Equipment										
Vehicles										
Wireless Comm. Devs.										
Subsidies, Loans & Grants										
Total										
No. of Positions (FTE)										

	FY 2011 Total Request									
	(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total					
Salaries, Wages, Fringe	338,575				338,575					
Travel	8,500				8,500					
Contractual Services	107,000				107,000					
Commodities	7,500				7,500					
Other Than Equipment	2,500				2,500					
Equipment	15,500				15,500					
Vehicles										
Wireless Comm. Devs.										
Subsidies, Loans & Grants	200,000				200,000					
Total	679,575				679,575					
No. of Positions (FTE)	2.00				2.00					

	Advanced Vehicula	ai 5ystems						1 - RESEARC
AGENCY								PROGRAM NAME
	Α	В	С	D	Е	F	G	Н
	FY 2010	Escalations	Non-Recurring	Core Operations	Total	FY 2011		
EXPENDITURES:	Appropriation	By DFA	Items		Funding Change	Total Request		
SALARIES	1,768,161					1,768,161		
GENERAL	1,768,161					1,768,161		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TRAVEL	93,000					93,000		
GENERAL	93,000					93,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	925,560			33,000	33,000	958,560		
GENERAL	925,560			33,000	33,000	958,560		
ST.SUP.SPECIAL	,			,	,	,		
FEDERAL								
OTHER								
COMMODITIES	109,970					109,970		
GENERAL	109,970					109,970		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE	72,500					72,500		
GENERAL	72,500					72,500		
ST.SUP.SPECIAL	72,500					12,500		
FEDERAL								
OTHER								
EQUIPMENT	147,500			11,322	11,322	158,822		
GENERAL	147,500			11,322	11,322	158,822		
ST.SUP.SPECIAL	147,500			11,522	11,522	150,022		
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL			+					
FEDERAL								
OTHER			+					
WIRELESS DEV								
GENERAL			+					
ST.SUP.SPECIAL								
FEDERAL			+					
OTHER			+					
SUBSIDIES	45,000					45,000		
GENERAL	45,000					45,000		
	45,000					45,000		
ST.SUP.SPECIAL								
FEDERAL			+					
OTHER	2 1 (1 (01			44.222	44 222	2 20( 012		

#### FUNDING:

TOTAL

3,161,691

I CIUDINO.						
GENERAL FUNDS	3,161,691		44,322	44,322	3,206,013	
ST.SUP.SPCL.FUNDS						
FEDERAL FUNDS						
OTHER SP.FUNDS						
TOTAL	3,161,691		44,322	44,322	3,206,013	

44,322

44,322

3,206,013

#### **POSITIONS:**

GENERAL FTE	55.00			55.00	
ST.SUP.SPCL.FTE					
FEDERAL FTE					
OTHER SP FTE					
TOTAL FTE	55.00			55.00	

### PRIORITY LEVEL:

				1			
	FY 2010	Escalations	Non-Recurring	Core Operations	Total	FY 2011	
EXPENDITURES:	Appropriation	By DFA	Items		Funding Change	Total Request	
SALARIES	338,575					338,575	
GENERAL	338,575					338,575	
ST.SUP.SPECIAL							

MSU - Center for A	dvanced Vehicular	Systems						- PUBLIC SERVIC
AGENCY							F	ROGRAM NAME
	Α	В	С	D	E	F	G	н
FEDERAL								
OTHER								
TRAVEL	8,500					8,500		
GENERAL	8,500					8,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	85,000			22,000	22,000	107,000		
GENERAL	85,000			22,000	22,000	107,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	7,500			ļ		7,500		
GENERAL	7,500					7,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE	2,500					2,500		
GENERAL	2,500					2,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT	5,500			10,000	10,000	15,500		-
GENERAL	5,500			10,000	10,000	15,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								-
OTHER				<u> </u>				
WIRELESS DEV				<u>↓</u>				
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER	200.000					200.000		-
SUBSIDIES	200,000					200,000		
GENERAL	200,000		+	<u>↓</u>		200,000		
ST.SUP.SPECIAL			+					
FEDERAL				<u> </u>				
OTHER	( 47 77 7			22.000	22.000	(70 575		
TOTAL	647,575			32,000	32,000	679,575		

#### FUNDING:

GENERAL FUNDS	647,575		32,000	32,000	679,575	
ST.SUP.SPCL.FUNDS						
FEDERAL FUNDS						
OTHER SP.FUNDS						
TOTAL	647,575		32,000	32,000	679,575	

### POSITIONS:

2.00			2.00		
2.00			2.00		
			Image: second	Image: Constraint of the second sec	Image: Constraint of the system         Image: Constand of the system         Image: Constando

### PRIORITY LEVEL:

		2		

## **PROGRAM NARRATIVE**

Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic Planning Act of 1994 (To Accompany Form MBR-1-03)

### MSU - Center for Advanced Vehicular Systems

1 - RESEARCH PROGRAM NAME

### AGENCY NAME I. Program Description:

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, improved crashworthiness, crash avoidance, new power generation, autonomous vehicle control (robotics) as well as advances in improved diagnostics, manufacturing, human interface, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

### II. Program Objective:

The objective of CAVS is to serve Mississippi State University, government, and industry through research and development of advanced computational modeling, simulation, and design of physical systems to solve real world problems. CAVS houses multiple research groups that provide cross-disciplinary research capabilities to address advancing technologies to solve complex problems for industry and our customers. As a result of CAVS' application-driven, team-oriented approach to basic and applied research on complex industrially-relevant engineering problems, we have contributed to:

* improved vehicle performance and reduced design cycle time and cost;

* timely generation of knowledge on the behavior and capabilities of missile, flight, naval vessels and other physical systems;

* analysis of behavior and performance of engineering systems (including humans) under adverse or catastrophic conditions;

* development of high-fidelity simulation tools and training;

* simulation and design systems to both enable and support designers and manufacturers of land, sea, air and space vehicular systems.

III. Current program activities as supported by the funding in Columns 6-15 (FY 10 Estimated & FY 11 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:

### (D) CORE OPERATIONS:

For FY2011, CAVS has requested an increase in its State funding in order to help with infrastructure costs associated with new industry that need technical support (PACCAR, Toyota) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned, it was focused on conventional automotive vehicles and manufacturing. We are now discovering that the industry is changing to biofuels and electric hybrids. CAVS' work with the DOE's ChallengeX and EcoCar has positioned it well to support the needs of Toyota and its Tier 1 and 2 supply chains; however, there is a need to update CAVS facilities and capacity to position it to provide the level of assistance necessary to effectively support the Mississippi hybrid electric vehicle industry and diesel engine manufacturing. Also, there is a need to reach out beyond the Canton-based engineering extension activity to better support state industry. This additional funding will be used to better situate CAVS to support Mississippi industry over the next 5 years.

# **PROGRAM NARRATIVE**

Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic Planning Act of 1994 (To Accompany Form MBR-1-03)

#### MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE PROGRAM NAME

### AGENCY NAME

### I. Program Description:

CAVS has proven to be a leading economic development engine for the State of Mississippi. In support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. Nissan and its suppliers in Mississippi are in a global labor competition, so securing lasting jobs is an important activity. Further, there is an increased demand for engineers and technologists to support the increasingly complex problems. According to a survey done by the Manufacturing Extension Partnership of Mississippi in 2007 & 2008, CAVS has had more than \$3 billion economic impact on the state and is responsible for over 1,400 jobs created or retained. Similar projects on behalf of other Mississippi companies help secure jobs throughout the state.

### II. Program Objective:

Although CAVS research, development, and extension activities are important to Nissan and its suppliers in attaining its goals, it is also clear CAVS has a broader impact. We are already playing a role with the new PACCAR engine plant and SeverStal steel mill located near the Golden Triangle Regional airport. We are also working closely with Nucor, a more established steel firm in the state. Further evidence of CAVS impact, the US Navy has certified our software for Simulation of Smoke and Fire Propagation on naval vessels. CAVS current efforts have touched on many manufacturers and hundreds of employees in the State, especially via our workforce training efforts. From this foundation, CAVS brings the promise for enhanced productivity to further grow the employment base. Thus, the financial support for growing CAVS and its cadre of skilled technologists has significant and long-term implications to the State.

III. Current program activities as supported by the funding in Columns 6-15 (FY 10 Estimated & FY 11 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:

### (D) CORE OPERATIONS:

For FY2011, CAVS has requested an increase in its State funding in order to help with infrastructure costs associated with new industry that need technical support (PACCAR, Toyota) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned, it was focused on conventional automotive vehicles and manufacturing. We are now discovering that the industry is changing to biofuels and electric hybrids. CAVS' work with the DOE's ChallengeX and EcoCar has positioned it well to support the needs of Toyota and its Tier 1 and 2 supply chains; however, there is a need to update CAVS facilities and capacity to position it to provide the level of assistance necessary to effectively support the Mississippi hybrid electric vehicle industry and diesel engine manufacturing. Also, there is a need to reach out beyond the Canton-based engineering extension activity to better support state industry. This additional funding will be used to better situate CAVS to support Mississippi industry over the next 5 years.

# Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic

Planning Act of 1994

MSU - Cent AGENCY NA	er for Advanced Vehicular Systems			RESEARCH
	RAM OUTPUTS: (This is the measure of the process n m. This is the volume produced, i.e., how many people		5	this
progra	in. This is the volume produced, i.e., now many people	FY 2009 ACTUAL	FY 2010 ESTIMATED	FY 2011 PROJECTED
1	# Agency Proposals	68.00	69.00	70.00
2	# Company Proposals	6.00	7.00	8.00
3	\$ Agency Proposals (in millions)	71.80	72.00	72.25
4	\$ Company Propsals (in millions)	0.40	0.42	0.43
5	Expenditures - Internal (in millions)	4.92	4.95	4.96
6	Expenditures - Agency (in millions)	12.62	12.65	12.67
7	Expenditures - Company (in millions)	0.59	0.62	0.64
8	# Awards - Agency	39.00	41.00	42.00
9	# Awards - Company	10.00	10.00	11.00
10	\$ Agency Awards (in millions)	15.34	15.75	15.85
11	\$ Company Awards (in millions)	0.22	0.25	0.26
12	# Managers	8.00	8.00	8.00
13	# Academic Faculty	53.00	53.00	54.00
14	# Research Professionals	111.00	108.00	110.00
15	# Support Staff	35.50	35.00	36.00
16	# Post Docs	23.00	25.00	26.00
17	# PhD Students Employed	57.00	59.00	60.00
18	# MS Students Employed	64.00	62.00	63.00
19	# Undergraduate Students Employed	153.00	153.00	155.00
20	# Journal Articles Submitted	25.00	28.00	29.00
21	# Conference Papers Submitted	24.00	25.00	26.00
22	# Authors of Proposals	66.00	68.00	69.00

<u>PROGRAM EFFICIENCIES</u>: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

		FY 2009 ACTUAL	FY 2010 ESTIMATED	FY 2011 PROJECTED
1	# Proposals / # Faculty & Mangers	1.21	1.23	1.25
2	<pre>\$ Proposals / # Faculty &amp; # Managers (in millions)</pre>	1.18	1.20	1.22
3	Expenditures / # Faculty & # Mangers	0.29	0.30	0.32
4	# Awards / # Faculty & # Managers	0.80	0.82	0.84
5	Expenditures / # Support Staff and Others (in millions)	0.04	0.05	0.06
6	# Journal Articles Published / # Faculty & # Managers	1.26	1.28	1.30
7	# Conference Papers / # Faculty & # Mangers	1.03	1.05	1.09
8	# Technical Reports / # Faculty & # Managers	0.12	0.15	0.18

# Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic

Planning Act of 1994

MSU - Center for Advanced Vehicular Systems	1 - RESEARCH
AGENCY NAME	PROGRAM NAME
<b>PROCEAM</b> OUTCOMES: (This is the measure of the quality	or affectiveness of the services provided by this program

**PROGRAM_OUTCOMES:** (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

		FY 2009 ACTUAL	FY 2010 ESTIMATED	FY 2011 PROJECTED
1	Journal Articles Published	77.00	79.00	82.00
2	Conference Papers	63.00	64.00	65.00
3	Technical Reports	20.00	22.00	24.00

# Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic

Planning Act of 1994

MSU - Center for Advanced Vehicular Systems	2 - PUBLIC SERVICE
AGENCY NAME	PROGRAM NAME

**PROGRAM OUTPUTS**: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

		FY 2009 ACTUAL	FY 2010 ESTIMATED	FY 2011 PROJECTED
1	# Agency Proposals	0.00	1.00	1.00
2	# Company Proposals	10.00	10.00	11.00
3	\$ Agency Proposals	0.00	1.00	1.00
4	\$ Company Proposals	0.24	0.25	0.27
5	Expenditures - Internal	0.02	0.02	0.02
6	Expenditures - Agencies	0.37	0.38	0.39
7	Expenditures - Company	0.18	0.19	0.20
8	Award - Agencies	0.00	1.00	1.00
9	Awards - Company	1.00	1.00	1.00
10	\$ Agency Awards	0.00	1.00	1.00
11	\$ Company Awards	0.03	0.03	0.04
12	Managers	2.00	2.00	2.00
13	# Academic Faculty	0.00	1.00	1.00
14	# Research Professionals	2.00	2.00	2.00
15	# Support Staff	5.00	4.00	4.00
16	# Post Docs	0.00	1.00	1.00
17	# PhD Students Employed	0.00	1.00	1.00
18	# MS Students Employed	0.00	1.00	1.00
19	# Undergraduate Students Employed	0.00	1.00	1.00
20	# Journal Articles Submitted	0.00	1.00	1.00
21	# Conference Papers Submitted	0.00	1.00	1.00
22	# Authors of Proposals	2.00	2.00	2.00

**PROGRAM EFFICIENCIES:** (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

		FY 2009 ACTUAL	FY 2010 ESTIMATED	FY 2011 PROJECTED
1	# Proposals / # Faculty & Managers	5.00	5.50	6.00
2	\$ Proposals / # Faculty & Managers	0.12	0.13	0.14
3	Expenditures / # Faculty & Managers	0.28	0.29	0.30
4	# Awards / # Faculty & Managers	0.50	0.50	0.50
5	Expenditures / # Support Staff and Others	0.08	0.08	0.08
6	# Publications/# Faculty & Managers	0.00	1.00	1.00
7	# Papers Presented/# Faculty & Mangers	0.00	1.00	1.00
8	Tech Reports/# Faculty & Managers	0.00	1.00	1.00

# Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic

Planning Act of 1994

MSU - Center for Advanced Vehicular Systems AGENCY NAME			IC SERVICE OGRAM NAME
<b>PROGRAM_OUTCOMES:</b> (This is the measure of the quality or end This measure provides an assessment of the actual impact or public results produced, i.e., increased customer satisfaction by x% within a fatalities due to drunk drivers within a 12-month period.)	benefit of your agency	's actions. This is the	e
	FY 2009 ACTUAL	FY 2010 ESTIMATED	FY 2011 PROJECTED
1 Proposals Submitted	10.00	11.00	12.00
2 # of Awards Received	2.00	3.00	4.00

# PROGRAM 3% GENERAL FUND REDUCTION AND NARRATIVE EXPLANATION

MSU - Center for Advanced Vehicular Systems

		Fise	FY 2010		
		Total Funds	Reduced Amount	Reduced Funding Amount	PERCENT REDUCED
Program	Name: (1) RESEARCH				
	GENERAL	3,161,691	( 94,851)	3,066,840	( 3.00%
	ST.SUPPORT SPECIAL				
	FEDERAL				
	OTHER SPECIAL				
	TOTAL	3,161,691	( 94,851)	3,066,840	
	GENERAL	647,575	( 19,427)	628,148	( 2.99
	e Explanation: eduction would be absorbed b	y reducing the amoun	t of cost share com	mitments.	
		647,575	( 19,427)	628,148	( 2.999
	ST.SUPPORT SPECIAL				
	FEDERAL				
	OTHER SPECIAL				
	TOTAL	647,575	( 19,427)	628,148	
A 3% r	e Explanation: eduction would be absorbed b	y reducing the amoun	t of cost share com	mitments.	
SUMMA	INT OF ALL I KOOKAMS		( 114.279)	3,694,988	( 3.00
SUMMA	GENERAL	3,809,266	(114.7)		, 5.00
SUMMA	GENERAL ST.SUPPORT SPECIAL	3,809,266	( 114,278)		
SUMMA		3,809,266	( 114,278)		
SUMMA	ST.SUPPORT SPECIAL	3,809,266	( 114,278)		

# Board of Trustees of Institutions of Higher Learning MEMBERS

MSU - Center for Advanced Vehicular Systems

Agency

A. Explain Rate and manner in which board members are reimbursed:

Board members are reimbursed through the Institution of Higher Learning Administration budget with a per diem of \$40 plus expenses B. Estimated number of meetings FY2010

12 (twelve)				Length
C. Names of Members	City, Town, Residence	Appointed By	Date of Appointment	of Term
1. Dr. L. Stacy Davidson, Jr.	Cleveland, MS	Musgrove	May 2000	12 Years
2. Dr. Bettye Henderson Neely	Grenada, MS	Musgrove	Jun. 2000	12 Years
3. Mr. Scott Ross	West Point, MS	Musgrove	May 2000	12 Years
4. Ms. Amy Whitten	Oxford, MS	Musgrove	May 2000	12 Years
5. Mr. Ed Blakeslee	Gulfport, MS	Barbour	May 2004	11 Years
6. Mr. Bob Owens	Terry, MS	Barbour	May 2004	11 Years
7. Mr. Aubrey Patterson	Tupelo, MS	Barbour	May 2004	11 Years
8. Ms. Robin Robinson	Laurel, MS	Barbour	May 2004	11 Years
9. Mr. Alan W. Perry	Jackson, MS	Barbour	May 2008	10 Years
10. Ms. Christine L. Pickering	Biloxi, MS	Barbour	May 2008	10 Years
11. Mr. C. D. Smith, Jr.	Meridian, MS	Barbour	May 2008	10 Years
12. Dr. Douglas W. Rouse	Hattiesburg, MS	Barbour	May 2008	10 Years

Identify Statutory Authority (Code Section or Executive Order Number)*

Constitutional Amendment 213A of the Constitution of the State of Mississippi

*If Executive Order, please attach copy.

### SCHEDULE B CONTRACTUAL SERVICES

MSU - Center for Advanced Vehicular Systems

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2009	(2) Estimated Expenses FY Ending June 30, 2010	(3) Requested for FY Ending June 30, 2011
A. TUITION, REWARDS & AWARDS (61010-61099)			
Tuition	12,981	15,000	15,000
Professional Development Fees	14,599	17,000	17,000
TOTAL (A)	27,580	32,000	32,000
B. TRANSPORTATION & UTILITIES (61100-61299)			
Postage/Mail Services	871	950	950
Transportation of Goods	1,264	1,500	1,500
Garbage Disposal	1,579	1,700	1,700
TOTAL (B)	3,714	4,150	4,150
C. PUBLIC INFORMATION ((61300-61399)		1	
Advertising & Public Information			
TOTAL (C)			
D. RENTS (61400-61499)			
Building & Floor Space	1,849	2,000	2,000
Computer Usage Charges	4,723	5,000	5,000
Vehicle Rental	1,183	1,500	1,500
TOTAL (D)	7,755	8,500	8,500
E. REPAIRS & SERVICES (61500-61599)		·	· · · · ·
Repair/Maintenance - Bldgs, Grounds	40,341	50,000	105,000
Office Equipment & Furniture	122	500	500
TOTAL (E)	40,463	50,500	105,500
F. FEES, PROFESSIONAL & OTHER SERVICES (61600-61699)	·	·	
Laboratory & Testing Fees	85,168	91,625	91,625
Other Fees & Services	10,052	9,460	9,460
TOTAL (F)	95,220	101,085	101,085
G. OTHER CONTRACTUAL SERVICES (61700-61899)		·	,
Membership Dues	1,275	1,300	1,300
Subscriptions	1,190	1,200	1,200
Employee Recruitment Costs/Advertising Positions	15,998	18,000	18,000
Non-Employee Expenses Reimbursement	1,567	2,000	2,000
Non-Reportable Participating Costs	346	400	400
Laundry and Dry Cleaning	191	225	225
Employee Moving Expenses	2,268	2,500	2,500
Custodial Services	46,539	48,000	48,000
Maintenance Contracts - Equipment	10,333	16,000	16,000
Pest Control	649	700	700
TOTAL (G)	80,356	90,325	90,325
H. INFORMATION TECHNOLOGY (61900-61990)			
Computer Software Acquistion	34,723	35,000	35,000
Telephone Charges	66,589	67,000	67,000
Computer Software Site Licenses	17,629	18,000	18,000
Computer Software Maintenance	52,579	54,000	54,000
TOTAL (H)	171,520	174,000	174,000

### SCHEDULE B CONTRACTUAL SERVICES CONTINUED

MSU - Center for Advanced Vehicular Systems

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2009	(2) Estimated Expenses FY Ending June 30, 2010	(3) Requested for FY Ending June 30, 2011			
I. OTHER (61991-61999)						
Contractual Services - HPC Retainage	461,839	550,000	550,000			
Other Miscellaneous Contractual Services						
TOTAL (I)	461,839	550,000	550,000			
<b>GRAND TOTAL</b> (Enter on Line I-B of Form MBR-1)	888,447	1,010,560	1,065,560			
FUNDING SUMMARY:						
GENERAL FUNDS	888,447	1,010,560	1,065,560			
STATE SUPPORT SPECIAL FUNDS						
FEDERAL FUNDS						
OTHER SPECIAL FUNDS						
TOTAL FUNDS	888,447	1,010,560	1,065,560			

### SCHEDULE C COMMODITIES

# MSU - Center for Advanced Vehicular Systems

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2009	(2) Estimated Expenses FY Ending June 30, 2010	(3) Requested for FY Ending June 30, 2011
A. MAINTENANCE & CONSTR. MATERIALS & SUPPLIES (6201	0-62099)		
Physical Plant Materials	1,249	1,500	1,500
Total (A)	1,249	1,500	1,500
B. PRINTING & OFFICE SUPPLIES & MATERIALS (62100-62199	))		
Printing, Binding, Padding	6,549	7,000	7,000
Duplication & Reproduction Supplies	2	5	5
Office Supplies & Materials	9,370	10,000	10,000
Postage Stamps	10	15	15
Business Supply / Services	2,720	3,000	3,000
Business Services (NEC)	5,913	6,200	6,200
Total (B)	24,564	26,220	26,220
C. EQUIPMENT REPAIR PARTS, SUPPLIES & ACCES. (62200-62	2299)		
Fuels - Gasoline	237	300	300
Total (C)	237	300	300
D. PROFESSIONAL & SCI. SUPPLIES AND MATERIALS (62300-	62399)		
Laboratory and Testing Supplies	103	150	150
Total (D)	103	150	150
E.OTHER SUPPLIES & MATERIALS (62400-62999)		I	
Custodial Supplies	682	700	700
Food	12,450	14,000	14,000
Other Supplies & Materials	25,821	27,500	27,500
Telecom Costs - Other	7,758	8,100	8,100
Expendible Equipment (less than \$1000)	13,097	14,000	14,000
Pro-Card Wholesale Trade	23,389	25,000	25,000
Total (E)	83,197	89,300	89,300
GRAND TOTAL (A, B, C, D & E) (Enter on Line I-C of Form MBR-1)	109,350	117,470	117,470
FUNDING SUMMARY:			
GENERAL FUNDS	109,350	117,470	117,470
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	109,350	117,470	117,470

### SCHEDULE D-1 CAPITAL OUTLAY OTHER THAN EQUIPMENT

MSU - Center for Advanced Vehicular Systems

Name of Agency			
MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2009	(2) Estimated Expenses FY Ending June 30, 2010	(3) Requested for FY Ending June 30, 2011
A. LANDS (63100-63199)	· · · ·		
63110 Land for Buildings			
63120 Land for Right-of-Way			
63170 Land Purchased for Other Purposes			
TOTAL (A)			
B. BUILDINGS & IMPROVEMENTS (63200-63299)			
Building - Construction, Renovation	245,000	75,000	75,00
TOTAL (B)	245,000	75,000	75,00
C. INFRASTRUCTURE & OTHER (63500-63999)			
639XX Other			
TOTAL (C)			
<b>GRAND TOTAL</b> (Enter on Line I-D-1 of Form MBR-1)	245,000	75,000	75,00
FUNDING SUMMARY:			
GENERAL FUNDS	245,000	75,000	75,00
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	245,000	75,000	75,00

### SCHEDULE D-2 CAPITAL OUTLAY EQUIPMENT

MSU - Center for Advanced Vehicular Systems

	Act. FY E	nding June 30, 2009	Est. FY E	Ending June 30, 2010	Req	. FY Ending June 30	, 2011
EQUIPMENT BY ITEM	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Cost Per Unit	Total Cost
A. VEHICLES (see form MBR-1-D-3)							
B. ROAD MACHINERY, FARM & OTHER EQUIPME	NT						
63320 Road Machinery							
TOTAL (B)							
C. OFFICE MACHINES, FURNITURE, FIXTURES, E	QUIP.						
Copier (R)					1	6,000	6,000
Lateral File (N)	1	1,031	3	4,000			
Shredder (R)	1	1,999					
Laser Jet Printer/Copier/Scanner (R)	1	2,300	2	4,000	1	2,000	2,000
TOTAL (C)		5,330		8,000			8,000
D. IS EQUIPMENT (DP & TELECOMMUNICATIONS	5)						
Desktop Computers (R)			25	70,000	22	4,151	91,322
Keyboard, Travel Mouse, Laser Mouse (N)	1	81					
Lacie TRI-INT 500GB HD (N)	1	329					
Computer (R)	1	1,199					
Computer (R)	1	1,314					
Computer (R)	1	1,756					
Thinkpad system (N)	1	1,765					
Thinkpad system (N)	1	2,043					
Thinkpad system (N)	1	2,851					
TOTAL (D)		11,338		70,000	I		91,322
E. EQUIPMENT - LEASE PURCHASE (63460-63476)	I		1				
634XX Lease Purchases							
TOTAL (E)							
F. OTHER EQUIPMENT	J. J		1				
Extruder add-ons (N)			1	35,675			
Current Probe (N)	1	2,039					
Hybrid Motor (N)		3,500					
Dynomometer (N)		16,425	1	39,325			
UQM Powerphase 75 System (N)		48,158					
Elec Regenerative Braking Converter (N)							
EDM machine (N)					1	75,000	75,000
TOTAL (F)		70,122		75,000	I		75,000
<b>GRAND TOTAL</b> (Enter on Line I-D-2 of Form MBR-1)		86,790		153,000			174,322
FUNDING SUMMARY: GENERAL FUNDS		86,790		153,000			174,322
STATE SUPPORT SPECIAL FUNDS				,			,02
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS		86,790		153,000			174,322

# SCHEDULE D-3 PASSENGER/WORK VEHICLES

### MSU - Center for Advanced Vehicular Systems

	Vehicle Inventory	FY En	ding	June 30, 2009	FY En	ading June 30, 2010	FY Endin	g June 30, 2011
MINOR OBJECT OF EXPENDITURE	June 30, 2009	No. of Vehicles		Actual Cost	No. of Vehicles	Estimated Cost	No. of Vehicles	Requested Cost
A. PASSENGER & WORK VEHICLES (63310, 63390-63	400)							
63310 Automobile, Compact Sedan (AUCS)								
63310 Automobile, Full Size Sedan (AU FS)								
63310 Automobile, Mid Size Sedan (AU MS)								
63310 Automobile, Mid Size Station Wagon (AU MW)								
63310 Automobile Utility (AU UT)								
63390 Truck, Carry-All (TK CA)								
63390 Truck, Compact Pickup (TK CU)								
63390 Truck, Dump Bed (TK DU)								
63390 Truck, Medium Duty 2.5 Ton (TK MD)								
63390 Truck, Mid Size Pickup (TK MU)								
63391 Truck, Heavy Duty 5 Ton (TK HD)								
63391 Truck, Heavy Duty Pickup (TK HU)								
63392 Sport Utility Vehicle (TK SU)								
63393 Van, Cargo (VN CD)								
63393 Van, Full Size (VN FV)								
63393 Van, Mid Size (VN MV)								
63400 Other Vehicles								
TOTAL (A)								
B. BETTERMENTS OR ACCESSORIES FOR VEHICLI	ES (63395)							
63395 Betterments or Accessories for Vehicles								
TOTAL (B)								
<b>GRAND TOTAL</b> (Enter on Line 1-D-3 of Form MBR-1)								
FUNDING SUMMARY: GENERAL FUNDS								
STATE SUPPORT SPECIAL FUNDS								
FEDERAL FUNDS								
OTHER SPECIAL FUNDS								
TOTAL FUNDS								

### SCHEDULE D-4 WIRELESS COMMUNICATION DEVICES

MSU - Center for Advanced Vehicular Systems

	Device Inventory	Act FY	Ending June 30, 2009	Est FY I	Ending June 30, 2010	Req FY	Ending June 30, 2011
MINOR OBJECT OF EXPENDITURE	June 30, 2009	No. of Devices	Actual Cost	No. of Devices	Estimated Cost	No. of Devices	Requested Cost
A. CELLULAR PHONES (63435)							
63435 Cellular Phones							
Total (A)							
B. PAGERS (63434)		·					
63434 Pagers, Paging Equipment							
Total (B)							
C. WIRELESS PERSONAL DIGITAL ASSISTANTS (6)	3435)	·					
63435 Wireless PDAs, Blackberry, etc							
Total (C)							
<b>GRAND TOTAL</b> (Enter on Line 1-D-4 of Form MBR-1)							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

### SCHEDULE E SUBSIDIES, LOANS & GRANT

MSU - Center for Advanced Vehicular Systems

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2009	(2) Estimated Expenses FY Ending June 30, 2010	(3) Requested for FY Ending June 30, 2011
A. SCHOOL GRANTS TO COUNTIES & MUNICIPALITIES (6400	0-64599)		
TOTAL (A)			
B. GRANTS TO I.H.L. & OTHER POLITICAL SUBDIVISIONS (64	600-64699)		
TOTAL (B)			
C. GRANTS TO NON-GOVERNMENT INSTNS & INDS (64700-649	99)		
TOTAL (C)			
D. DEBT SERVICE & JUDGEMENTS (65000-65399)			
TOTAL (D)			
E. OTHER (66000-89999)			
Cost Share on Joint Industry / University / Federal	228,362	245,000	245,000
TOTAL (E)	228,362	245,000	245,000
GRAND TOTAL (Enter on Line I-E of Form MBR-1)	228,362	245,000	245,000
FUNDING SUMMARY:			
GENERAL FUNDS	228,362	245,000	245,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	228,362	245,000	245,000

### NARRATIVE 2011 BUDGET REQUEST

### MSU - Center for Advanced Vehicular Systems

Name of Agency

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, improved crashworthiness, crash avoidance, new power generation, autonomous vehicle control (robotics) as well as advances in improved diagnostics, manufacturing, human interface, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

The research groups within CAVS are dynamic with the ability to maximize the utilization of advancing technologies. In recognition that today's complex problems facing manufacturing competitiveness and product safety and reliability must be addressed by cross-disciplinary teams, CAVS researchers approach the problems from diverse viewpoints to arrive at appropriate solutions. Each group at CAVS shares a passion for helping industry realize and sustain a competitive advantage within the global economy.

In support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology.

CAVS is in a strong growth mode that is already creating a regional resource for the recruiting of automotive and related industries. The recent recruitments of PACCAR and Toyota to the state of Mississippi were facilitated by the core competencies in research, extension, and automotive related academic prowess at CAVS. Although the downturn in the US economy delayed these two organizations from coming on-line in 2009, it is anticipated they will be viable with their operations by 2011 and in need of support from CAVS. CAVS has also been proven to be a leading economic development engine for the State of Mississippi. According to a survey done by the Manufacturing Extension Partnership of Mississippi in 2007 & 2008, CAVS has had more than \$3 billion economic impact on the state and is responsible for over 1,400 jobs created or retained. As for the quality of the students being produced by MSU's engineering programs and CAVS, the winning of the overall 4-year DOE/GM ChallengeX program is evidence that is hard to beat of the quality of our students. Also, after the first year of competition in the new DOE/GM EcoCar Challenge the MSU team is in third place out of 17 teams.

CAVS represents a commitment by the State of Mississippi to work with and support Mississippi industry through project-based activities. The management at CAVS and the research team in general, recognize the need to generate economic development via technological and scientific discovery. This means CAVS serves as a knowledge resource for existing and future Mississippi industries. As with all academic research centers, CAVS is dependent on stable infrastructure support to ensure the best and brightest engineering talent is brought to bear on the regional growth initiatives and development of a strong R&D infrastructure to support the emerging Southern Automotive Corridor. CAVS now serves as an active member of the Mississippi Automotive Manufacturing Alliance and it has established a close working relationship with the Nissan assembly facility in Canton. CAVS faculty and staff are continuing to work closely with MDA and local economic development authorities throughout the state in recruiting new industry to the state. The State infrastructure funds allow CAVS to build toward its basic mission, with already much evidence of impact via an effective engineering capability to support Mississippi industry. Having access to knowledgeable researchers and providing leading edge capabilities is an important asset for the State.

Recurring State funding for CAVS is required as the foundation continues to be built via the development of the facilities, staff, and knowledge base. Current State funding is critical to supporting the infrastructure while seeding new research initiatives, student activities, and engineering extension. Further, many recent activities have helped

### NARRATIVE 2011 BUDGET REQUEST

### MSU - Center for Advanced Vehicular Systems

Name of Agency

Mississippi industry via workforce training, short courses, and partnerships designed to attract federal and industrial funding. At present, the State support is providing less than 20 percent of the total CAVS operating funds. Continued leveraging of the State funding is critical to building a self-sustaining organization satisfying the obligations of CAVS to our partners, the state, and the university.

For 2011, CAVS has requested an increase in its State funding. This request is asked to help with infrastructural costs associated with new industry that need technical support (e.g., the new PACCAR diesel engine manufacturing facility, Toyota hybrid vehicle production) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned, it was focused on conventional automotive vehicles (i.e., gasoline fueled internal combustion engines) and a manufacturing focus in the Canton area. We are now discovering 6 years past our inception that the industry is changing to biofuels and electric hybrids. CAVS' work with ChallengeX has positioned it well to support the needs of Toyota and its Tier 1 and 2 supply chains; however, there is a need to update CAVS facilities to position it to provide the level of support necessary for supporting the Mississippi hybrid electric vehicle industry. Also, there is a need to reach out beyond the Canton-based engineering extension activity and to better support state industry. Additional funding will be used to situate CAVS to provide support to Mississippi industry by:

* Providing funding for the replacement of aging office equipment and computers, most of which were purchased when the CAVS building was constructed in 2003.

* Providing funding for the potential expansion of the CAVS facility in Starkville. Currently, approximately 15 employees are housed off-site due to the lack of available office and research space.

# OUT-OF-STATE TRAVEL FISCAL YEAR 2009

#### MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2009 on Form Mbr-1, line I.A.2.b.

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Employee's Name	Destination	Purpose	Travel Cost	Funding Source
Paul Babin	MIAMI, FL	INDUSTRIAL ENGINEERING RESEARCH CONF	1,047	G.F.
Douglas Bammann	SEATTLE, WA	NULEAR ENERGY WKSHOP	1,812	G.F.
Criston Bell	PANAMA CITY, FL	NATL COUNCIL OF UNIV RESEARCH ADMIN	947	G.F.
Eric Blades	AUSTIN, TX	2008 SUPER COMPUTING CONF	1,655	G.F.
Victor Branch	DALLAS, TX	WINSTON-DELL SOLAR CAR TRAINING WKSHOP	869	G.F.
Victor Branch	CHATTANOOGA, TN	46TH AMERICAN TECHNICAL EDUCATION CONF	929	G.F.
Debra Brown	NEW ORLEANS, LA	ATTEND WORKFORCE INNOVATIONS 2008 CONF	423	G.F.
Angela Card	ATLANTA, GA	SOUTHEASTERN DIESEL CONSORTIUM GRANT WKSHOP	472	G.F.
Angela Card	ORLANDO, FL	ALTERNATIVE FUEL & VEHICLES CONF & EXPO	1,520	G.F.
Jacob Coleman	OAK RIDGE, TN	PERFORM RESIDUAL STRESS TEST AT OAK RIDGE LAB	1,480	G.F.
Tracie Crosswhite	WASHINGTON, DC	NATL COUNCIL OF UNIV RESEARCH ADMIN CONF	1,896	G.F.
Haitham El Kadiri	DENVER, CO	PDF4+ USER MEETING	525	G.F.
James Gafford	SYRACUSE, NY	MEET ULTRALIFE INC.	916	G.F.
Randall German	WASHINGTON, DC	2008 WORLD CONGRESS ON POWDER METALLURGY & PA	1,800	G.F.
Travis Hill	MIAMI, FL	INDUSTRIAL ENGINEERING RESEARCH CONF	967	G.F.
Leroy Hollingshed	NORWOOD, MA	TRAINING FOR HYDRAULIC INSTIU-STAGE AT ADMET	1,229	G.F.
Robert Holt	MIAMI, FL	INDUSTRIAL ENGINEERING RESEARCH CONF	983	G.F.
Stephen Horstemeyer	NORWOOD, MA	HYDRAULIC INSTIU-STAGE TRAINING AT ADMET INC.	1,314	G.F.
Stephen Horstemeyer	BETHPAGE, NY	LOOK AT COPY DESIGN OF POLISHER MACHINE	1,534	G.F.
Montgomery Hughson	AUSTIN, TX	2008 SUPER COMPUTING CONF	1,679	G.F.
James Jordon	BETHPAGE, NY	LOOK AT AND COPY DESIGN OF POLISHER MACHINE	1,218	G.F.
Roger King	DETROIT, MI	DEPT OF ENERGY ANNUAL REVIEW MEETING	1,025	G.F.
Roger King	GREENVILLE, SC	SPEAK AT AUTOMOTIVE RESEARCH SEMINAR	664	G.F.
Roger King	MOBILE, AL	ATTEND NORTHERN GULF INST 2009 ANNUAL CONF	289	G.F.
Roger King	MONTEREY, CA	MEET WITH REPRESENTATIVES OF COMPANIES	1,654	G.F.
Roger King	DETROIT, MI	ATTEND TARDEC CONSORTIUM	1,997	G.F.

# OUT-OF-STATE TRAVEL FISCAL YEAR 2009

#### MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2009 on Form Mbr-1, line I.A.2.b.

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Destination	Purpose	Travel Cost	Funding Source
	KICKOFF		
SYRACUSE, NY	MEET WITH ULTRALIFE INC.	1,297	G.F.
NASHVILLE, TN	ATTEND THE AUTOMOTIVE RESEARCH	506	G.F.
	ALLIANCE MEETI		
ATLANTA, GA	SOUTHEAST DIESEL COLLABORATIVE	832	G.F.
	GRANT APPLICAT		
ATLANTA, GA	SOUTHEAST DIESEL COLLABORATIVE	1,023	G.F.
	PARTNERS MEETI		
PANAMA CITY, FL	NATL COUNCIL OF UNIV RESEARCH	998	G.F.
	ADMIN REGION		
DENVER, CO	INTL CENTER FOR DIFFRACTION DATA	492	G.F.
	PDF4+ USER M		
OAK RIDGE, TN	MEET WITH PERSONNEL FROM OAK	294	G.F.
	RIDGE NATL TRANS		
WASHINGTON, DC	U.S. DEPT ENERGY HYDROGEN	1,487	G.F.
	PROGRAM & VEHICLE T		
SYRACUSE, NY	MEET WITH ULTRALIFE INC.	1,223	G.F.
NEW ORLEANS, LA	WORKFORCE INNOVATIONS 2008 CONF	514	G.F.
NEW ORLEANS, LA	ATTEND WORKFORCE INNOVATIONS	15	G.F.
	CONF		
RENO, NV	APPLIED ERGONOMICS CONF	1,465	G.F.
RENO, NV	TWELVETH ANNUAL APPLIED	1,751	G.F.
	ERGONOMIC CONF		
WASHINGTON, DC	APPLIED POWER ELECTRONICS CONF &	1,435	G.F.
	EXPOSITION		
MEMPHIS, TN	INNOVATION CONF & MEETING WITH	364	G.F.
	FEDEX		
DETROIT, MI	ATTEND 2009 WORLD CONGRESS	1,932	G.F.
OAK RIDGE, TN	MEET WITH PERSONNEL FROM OAK	290	G.F.
	RIDGE NATL TRANS		
SAN JOSE, CA	ATTEND PLUG-IN CONF & BARRERY	1,800	G.F.
	WKSHOP		
SYRACUSE, NY	ATTEND ECRCAR KICKOFF	279	G.F.
LAS VEGAS, NV	2008 INTL POWER MODULATOR	271	G.F.
	SYMPOSIUM AND HIGH		
RENO, NV	TWELVETH ANNUAL APPLIED	1,274	G.F.
	ERGONOMICS CONF		
WASHINGTON, DC	ATTEND NATL COUNCIL UNIV	1,051	G.F.
	RESEARCH ADMIN CONF		
ROANOKE, VA	ATTEND HIGH PERFORANCE	1,327	G.F.
	COMPUTING USER FORUM		
BIRMINGHAM, AL	AUTOMOTIVE NEWS MANUFATURING	681	G.F.
	CONF		
DETROIT, MI	ATTEND THE TARDEC CONSORTIUM	1,995	G.F.
	KICKOFF		
HUNTSVILLE, AL	ATTEND SOUTHERN AUTOMOTIVE CONF	708	G.F.
	NASHVILLE, TN ATLANTA, GA ATLANTA, GA PANAMA CITY, FL DENVER, CO OAK RIDGE, TN WASHINGTON, DC SYRACUSE, NY NEW ORLEANS, LA NEW ORLEANS, LA NEW ORLEANS, LA NEWORLEANS, LA NEWORLEANS, LA NEWORLEANS, LA SYRACUSE, NY RENO, NV BASHINGTON, DC SAN JOSE, CA SYRACUSE, NY LAS VEGAS, NV RENO, NV WASHINGTON, DC RENO, NV	SYRACUSE, NYMEET WITH ULTRALIFE INC.NASHVILLE, TNATTEND THE AUTOMOTIVE RESEARCH ALLIANCE MEETIATLANTA, GASOUTHEAST DIESEL COLLABORATIVE GRANT APPLICATATLANTA, GASOUTHEAST DIESEL COLLABORATIVE PARTNERS MEETIPANAMA CITY, FLNATL COUNCIL OF UNIV RESEARCH ADMIN REGIONDENVER, COINTL CENTER FOR DIFFRACTION DATA PDF4+ USER MOAK RIDGE, TNMEET WITH PERSONNEL FROM OAK RIDGE NATL TRANSWASHINGTON, DCU.S. DEPT ENERGY HYDROGEN PROGRAM & VEHICLE TSYRACUSE, NYMEET WITH ULTRALIFE INC.NEW ORLEANS, LAWORKFORCE INNOVATIONS 2008 CONFNEW ORLEANS, LAWORKFORCE INNOVATIONS 2008 CONFRENO, NVAPPLIED ERGONOMICS CONFRENO, NVAPPLIED ERGONOMICS CONFRENO, NVTWELVETH ANNUAL APPLIED ERGONOMIC CONFWASHINGTON, DCAPPLIED POWER ELECTRONICS CONF & EXPOSITIONMEMPHIS, TNINNOVATION CONF & MEETING WITH FEDEXDETROIT, MIATTEND 2009 WORLD CONGRESS OAK RIDGE, TNSAN JOSE, CAATTEND PLUG-IN CONF & BARRERY WKSHOPSYRACUSE, NY2008 INTL POWER MOULATOR SYMPOSIUM AND HIGHRENO, NVTWELVETH ANNUAL APPLIED ERGONOMICS CONFWASHINGTON, DCATTEND PLOCIL UNIV RESEARCH ADMIN CONFSAN JOSE, CAATTEND PLOG-IN CONF & BARRERY WKSHOPSYRACUSE, NY2008 INTL POWER MOULATOR SYMPOSIUM AND HIGHRENO, NVTWELVETH ANNUAL APPLIED ERGONOMICS CONFWASHINGTON, DCATTEND NATL COUNCIL UNIV RESEARCH ADMIN CONFROANOKE, VAATTEND HIGH PERFORANCE<	SYRACUSE, NYMEET WITH ULTRALIFE INC.1,297NASHVILLE, TNATTEND THE AUTOMOTIVE RESEARCH506ALLANCA, GASOUTHEAST DIESEL COLLABORATIVE832GRANT APPLICATGRANT APPLICATATLANTA, GASOUTHEAST DIESEL COLLABORATIVE1,023PARTNERS MEETIPARTNERS MEETIPANAMA CITY, FLNATL COUNCIL OF UNIV RESEARCH998ADMIN REGIONINTL CENTER FOR DIFFACTION DATA492PDF4+ USER MOAK RIDGE, TNMEET WITH PERSONNEL FROM OAK294RIDGE NATL TRANSU.S. DEPT ENERGY HYDROGEN1,487PROGRAM & VEHICLE TSYRACUSE, NYMEET WITH ULTRALIFE INC.1,223NEW ORLEANS, LAWORKFORCE INNOVATIONS 2008 CONF514NEW ORLEANS, LAATTEND WORKFORCE INNOVATIONS15CONFCONF1,465RENO, NVAPPLIED ERGONMICS CONF1,435WASHINGTON, DCAPPLIED FOWER ELECTRONICS CONF &1,435WASHINGTON, DCAPPLIED POWER ELECTRONICS CONF &1,435WASHINGTON, DCAPPLIED POWER ELECTRONICS CONF &1,435MEMPHIS, TNINNOVATION CONF & MEETING WITH364FEDEXDETROIT, MIATTEND PUG-IN CONF & BARRERY1,800WASHINGE, TNMEET WITH PERSONNEL FROM OAK290NEMPHIS, TNENGOVATION CONF & BARRERY1,800WASHINGE, NV2008 INTL POWER MODULATOR271SAN JOSE, CAATTEND PLUG-IN CONF & BARRERY1,800WASHINGTON, DCATTEND DECRCAR KICKOFF279LAS VEGAS, NV2008 INTL POWE

# OUT-OF-STATE TRAVEL FISCAL YEAR 2009

#### MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2009 on Form Mbr-1, line I.A.2.b.

Employee's Name	Destination	Purpose	Travel Cost	Funding Source
Zachary Rowland	FAIRBANKS, AK	START OF WORK MEETING FOR	1,606	G.F.
		SIMULATION BASED RE		
Zachary Rowland	MEMPHIS, TN	MEET WITH THE PRESIDENT OF	187	G.F.
		FEDERAL EXPRESS CO		
Zachary Rowland	AUSTIN, TX	2008 SUPERCOMPUTOR CONF	1,868	G.F.
Robert Sheely	HUNTSVILLE, AL	ATTEND SOUTHERN AUTOMOTIVE CONF	824	G.F.
Chunhua Sheng	DALLAS, TX	AMERICAN HELICOPTER ANNUAL	1,684	G.F.
		FORUM		
Kiran Solanki	PUEBLO, CO	2009 JOINT RAIL CONF	1,343	G.F.
Teresa Stewart	ATLANTA, GA	SOUTHEASTERN DIESEL CONSORTIUM	564	G.F.
		GRANT APPLICAT		
Teresa Stewart	LAS VEGAS, NV	INTL POWER MODULATOR CONF	1,642	G.F.
Tonya Stone	ORLANDA, FL	POWDER INJECTION MOLDING CONF	1,656	G.F.
Clayton Walden	NEW ORLEANS, LA	ATTEND A JOINT PANEL MEETING	265	G.F.
Clayton Walden	MIAMI, FL	INDUSTRIAL ENGINEERING RESEARCH	1,777	G.F.
		CONF		
Paul Wang	GAITHERSBURG, MD	PROPOSER'S CONF	872	G.F.
Wilburn Whittington	ORLANDO, FL	ATTEND POWDER INJECTION MOLDING	1,550	G.F.
		2009 WKSHOP		
Cheryl Woody	PANAMA CITY, FL	NATL COUNCIL OF UNIV RESEARCH	920	G.F.
		ADMIN REGION		
Hebi Yin	SAN FRANCISCO, CA	ATTEND MINERAL AND MATERIALS	1,081	G.F.
		ANNUAL MEETING		
	I	Total Out of State Travel Cost	\$73.087	=
		Total Out of State Travel Cost	\$73,987	

# FEES, PROFESSIONAL AND OTHER SERVICES (EXPENDITURE CODES 61600-61699)

MSU - Center for Advanced Vehicular Systems

TYPE OF FEE AND NAME OF VENDOR	Retired w/ PERS	(1) Actual Expenses FY Ending June 30, 2009	(2) Estimated Expenses FY Ending June 30, 2010	(3) Requested for FY Ending June 30, 2011	Fund Num.
Laboratory & Testing Fees					
CAVS Service Center / THERMAL ANALYSIS		1,300	1,625	1,625	G.F.
Comp. Rate: \$325 PER ANALYSIS					
CAVS Service Center / Laboratory and Testing Fees		83,868	90,000	90,000	G.F.
Comp. Rate: \$30/hour					
TOTAL Laboratory & Testing Fees		85,168	91,625	91,625	
Other Fees & Services					
JAMES CLUTTER / CONSULTANT EXPENSE		726	1,000	1,000	G.F.
Comp. Rate: \$286.50/AIR, \$275.77/HOTE					
JAMES CLUTTER / CONSULTING		1,000	1,250	1,250	G.F.
Comp. Rate: \$125 PER HOUR					
JAMES HARRIS / SAND, STAIN, VARNISH HAND RAILS		500	500	500	G.F.
Comp. Rate: \$500 PER JOB					
WOJCIECH MISIOLEK / CONSULTING		3,000	2,500	2,500	G.F.
Comp. Rate: \$117.50 PER HOUR					
PRIYA PRASAD / EXPENSE REIMBURSEMENT		791	800	800	G.F.
<i>Comp. Rate: \$678/AIR, \$113.36/HOTEL</i>					
BOB WEINING / CDL PRACTICE TESTING		100	50	50	G.F.
Comp. Rate: \$50 PER HOUR					
BOB WEINING / CDL PRACTICE TESTING		200	50	50	G.F.
Comp. Rate: \$50 PER HOUR					
WEST ARCHITECTURAL SPECIALTIES / PROVIDE DOOR SIGNS		525	132	132	G.F.
Comp. Rate: \$131.25 EACH					
AMAZON.COM / (Procard) - Contr Chgs - BOOKS		126	200	200	G.F.
Comp. Rate: \$126.44/book					
LONGEST STUDENT HEALTH CENTER / Physical for Commercial Driver's		97	97	97	G.F.
License					
Comp. Rate: \$97/test					
LONGEST STUDENT HEALTH CENTER / Physical for Commercial Driver's		97	97	97	G.F.
License					
Comp. Rate: \$97/test					
LONGEST STUDENT HEALTH CENTER / Physical for Commercial Driver's		84	84	84	G.F.
License					
Comp. Rate: \$84/test					
PAGE CHARGES / Professional Publications		560	600	600	G.F.
Comp. Rate: \$112/page					
HUMAN SUBJECT / Participation Fees		785	600	600	G.F.
Comp. Rate: \$15/person					
MAFES / MAFES invoice for Road Truck		500	500	500	G.F.
Comp. Rate: \$.70 mile					
MSU FLIGHT SERVICES / Pro-rated cost of travel on MSU plane		961	1,000	1,000	G.F.
Comp. Rate: \$961/person					
TOTAL Other Fees & Services		10,052	9,460	9,460	
GRAND TOTAL (61600-61699)		95,220	101,085	101,085	

# VEHICLE PURCHASE DETAILS

 MSU - Center for Advanced Vehicular Systems

 Name of Agency
 FY2011

 Year
 Model
 Person(s) Assigned To
 Vehicle Purpose/Use
 FY2011

0 0

TOTAL VEHICLE REQUEST 0

### VEHICLE INVENTORY AS OF JUNE 30, 2009

### MSU - Center for Advanced Vehicular Systems

Name of Agency

Veh.	Vehicle Descript.	Model Year		Mileage On 6-30-09	Average Miles per Year	<u> </u>	ent Proposed FY 2011			
Туре	Descript.	rear	Model	Person(s) Assigned To	Purpose/Use	Number	On 0-30-09	Miles per Year	FY 2010	FY 2011

Vehicle Type = <u>P</u>assenger/<u>W</u>ork

# PRIORITY OF DECISION UNITS FISCAL YEAR 2011

MSU - Center for Advanced Vehicular Systems

Agency Name

Program	Decision Unit	Object	Amount
Priority # 1			
Program # 1 : RESE	ARCH		
-	CORE OPERATIONS		
		Contractual	33,000
		Equipment	11,322
		Total	44,322
		General Funds	44,322
Priority # 2			
Program # 2 : PUBL	IC SERVICE		
-	CORE OPERATIONS		
		Contractual	22,000
		Equipment	10,000
		Total	32,000
		General Funds	32,000

### CAPITAL LEASES

MSU - Center for Advanced Vehicular Systems

		Original	nal Number Amount of Each					Amount of Each			Total of Payments to be Made				
Vendor/	Original Date of		of Months Remaining	Last Pavment	Interest	Monthly/Yearly Payment			Estimated FY 2010			Requested FY 2011			
Item Leased	Lease		on 6-30-09	Date	Rate	Principal	Interest	Total	Actual FY 2009	Principal	Interest	Total	Principal	Interest	Total
/	//	0	0	//	.000										

# Summary of 3% General Fund Program Reduction to FY2010 Appropriated Funding by Major Object

MSU - Center for Advanced Vehicular Systems

Major Object	FY2010 GENERAL FUND REDUCTION	AFFECT ON FY2010 STATE SUPPORT SPECIAL FUNDS	AFFECT ON FY2010 FEDERAL FUNDS	AFFECT ON FY2010 OTHER SPECIAL FUNDS	TOTAL 3% REDUCTIONS
PERSONAL SERVICES	( 114,278)				( 114,278)
TRAVEL					
CONTRACTUAL SERVICES					
COMMODITIES					
OTHER THAN EQUIPMENT					
EQUIPMENT					
VEHICLES					
WIRELESS COMM. DEVICES					
SUBSIDIES, LOANS, ETC					
TOTALS	( 114,278)				( 114,278)