Prime Recipient
066470972 | 0947832

FederalReporting.gov

Report Information

Award Type	Award Number	Prime DUNS	Calendar Year / Quarter	Final Report
Grant	0947832	066470972	2010 / 2	No

Award Recipient Information

Recipient DUNS Number	066470972	**Recipient Address 1**	107 SAMFORD HALL
Recipient Account Number	219043	**Recipient Address 2**	
Recipient Congressional District	02	**Recipient City**	AUBURN
		Recipient State	AL
Parent DUNS Number	066470972	**Recipient ZIP Code + 4**	368490001
Recipient Type	2U.95.G6.M8.OH.VW	**Recipient Country**	USA
Recipient Legal Name	AUBURN UNIVERSITY		
Recipient DBA Name			

Project / Award Information

Funding Agency Code	4900	**Total Number of Sub Awards less than $25,000/award**	0
Awarding Agency Code	4900	**Total Amount Sub Awards less than $25,000/award**	0.00
Program Source (TAS) Code	49-0101	**Total Number of Sub Awards to Individuals**	0
Sub Account Number for Program Source		**Total Amount of Sub Awards to Individuals**	0.00
CFDA Number	47.082	**Total Number of Payments to Vendors less than $25,000/award**	0
Amount of Award	100000.00	**Total Amount of Payments to Vendors less than $25,000/award**	0.00
Award Date	08/28/2009		
Award Description	ECCS/PCAN/EAGER: Biologically Inspired Resource Harvesting in Mobile Wireless Networks - This research will provide techniques to harvest and manage two of the most important resources required by a wireless mobile device: energy and computing power.		

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Project Information

Project Name or Project/ Program Title
ECCS/PCAN/EAGER: Biologically Inspired Resource Harvesting in Mobile Wireless Networks

Quarterly Activities/ Project Description
Currently, we are investigating the use of prediction algorithms other than HMM such as neural networks. We have implemented a multi layer perceptron (MLP) model. This model consists of ?hidden layers? sandwiched between an input and out layer. A single hidden layer is sufficient enough to remove the non-linearity in the input data, given there are adequate number of hidden nodes. The hidden layer consists of two layers of synaptic connections on either side. The weights of the hidden layer are trained with a standard back propagation algorithm. The output layer combines the values to denote the predicted value. The neural network has demonstrated lower complexity in certain scenarios. We are currently investigating issues regarding the comparison of different prediction models such as HMM, MLP, etc.

Activity Codes (NAICS or NTEE-NPC) (up to 10)

Activity Code 1 B43 - NTEE
Activity Code 2
Activity Code 3
Activity Code 4
Activity Code 5
Activity Code 6
Activity Code 7
Activity Code 8
Activity Code 9
Activity Code 10

Project Status Less than 50% completed

Total Federal Amount ARRA Funds Received/ Invoiced 31150.74

Number of Jobs 1.31

Description of Jobs Created Graduate Assistants

Total Federal Amount of ARRA Expenditure 38612.11

Total Federal ARRA Infrastructure Expenditure 0.00

Infrastructure Purpose and Rationale

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Infrastructure Contact

Name		**Street Address 1**	
Email		**Street Address 2**	
Phone		**Street Address 3**	
Ext		**City**	
		State	
		ZIP Code + 4	

Primary Place of Performance

Address 1	200 Broun Hall
Address 2	
City	Auburn University
Country Code	US
State	AL
ZIP Code + 4	36849 - 5201
Congressional District	03

Recipient Highly Compensated Officers

Prime Recipient Indication of Reporting Applicability	No	**Officer 3 Name**	
		Officer 3 Compensation	
Officer 1 Name		**Officer 4 Name**	
Officer 1 Compensation		**Officer 4 Compensation**	
Officer 2 Name		**Officer 5 Name**	
Officer 2 Compensation		**Officer 5 Compensation**	

Report Audit Trail

Created By	Cindy Selman
Date Created	07/01/2010 11:47 AM
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Last Updated On	07/07/2010 02:46 PM