INSTITUTION OF HIGHER EDUCATION
NEW
PROVISIONAL POSITION REQUEST

INSTITUTION Example University BOARD APPROVAL DATE 5/23/26

REQUESTED TITLE FOR FY27	NUMBER OF POSITIONS FOR FY27	PROPOSED POSITION SALARY FOR FY27	DEPARTMENT/PROGRAM ASSIGNMENT FOR FY27
Research Associate	1	$50,000	Engineering and Computer Science (ECS)

Percentage % for Each SOURCE OF FUNDING, Type of Funds for Each Source (Federal, Grants, Gifts, Collections, and/or University/College Funds) & Name for Each Source of Funding for 2026-27	TOTAL FUNDING ($) (Provide a $ Amount for Each Source Listed) for FY27	APPROPRIATION LIM SALARY for FY27	POSITION FUNDING DATES (Provide dates as MM/DD/YY - MM/DD/YY for Each Source Listed) for FY27
16% Federal - National Science Foundation (NSF)	$146,070	$164,641	9/01/26 - 5/12/27
25% Grant - Aviagen	$210,337		8/15/26 - 12/31/26
59% Grant - Artificial Intelligence (AI)	$450,126		11/01/26 - 6/30/27

NOTE: For new request, complete the Justification for Positions Need, Narrative Project Description and Narrative Position Description on the narratives tab. Be sure to complete all three (3) sections.

Susan Smith 7/4/26
INST PERSONNEL REPRESENTATIVE DATE

Dr. Thomas Turner 7/4/26
INST PRESIDENT/CHANCELLOR DATE

Official Use Only

// Approved as follows / / Disapproved

CLASS CODE/TITLE	# of Positions	SALARY
		FY27

ITEM NUMBER	APPROVED THROUGH
	June 30, 2027

ADHE PERSONNEL REPRESENTATIVE DATE

ADHE ASSISTANT COMMISSIONER DATE

POSITIONS AUTH _____ POSITIONS APPROVED _____ POSITIONS REMAINING _____

JUSTIFICATION FOR POSITION NEED:

This position will seek to increase the accuracy of broiler technology and make production assembly lines more accurate based on algorithmic research and testing. This position will be working on testing the continual learning for real-time scene reconstruction and scene understanding and supporting multiple object tracking (from multiple views) in broiler technology to improve assembly line accuracy. This position will also be testing 3D object reconstructions, apply sound problem-solving techniques, & design methodology and circuit analysis.

NARRATIVE PROJECT DESCRIPTION:

Broiler behavior understanding, we will utilize our previous work on human behavior understanding and our recent work on human action localization and detection from untrimmed videos, which have achieved the state-of-the art on multiple standard datasets. Our network is designed as a 3D convolution neural network (CNN) which takes both temporal and spatial information into consideration. In our work, we investigated a solution for the problem of proposing temporal intervals in along video that may contain any action of interest that are performed by a human. There are two main components in our method: (1) human pathway, which observes the human motion in video; and (2) environment pathway, which observes the overall view of video frames. In order to adapt our work into broiler behaviors, we propose to change the first component of our proposed method to target the motions caused by broilers. With that modification, our system will be able to attend on the movements of broilers in order to propose intervals where the broilers do activities that we want to observe. We can utilize datasets that we previously collected from the chicken house to perform annotations for the broiler activities of our interests. The system may be trained by typical supervised learning methods to localize temporal periods where any broiler behavior or activity of interest is observed. Furthermore, multiple views of the broiler will be employed by an advanced transformer network.

The goal is to better characterize the timescales of plasticity at the synapses between the cerebellar feedback and sensory neurons in the weakly electric fish to determine the consequences of this diverse plasticity on the circuit output. The role of the diverse plasticity rules will be examined by integrating them in a realistic model of the network allowing us to explore how the rules can be optimized. This will reveal how biological systems implement learning rules to produce a robust output under changing conditions and will inform the development of new algorithms. The goal is to better characterize the timescales of plasticity at the synapses between the cerebellar feedback and sensory neurons in the weakly electric fish to determine the consequences of this diverse plasticity on the circuit output. The role of the diverse plasticity rules will be examined by integrating them in a realistic model of the network allowing us to explore how the rules can be optimized. This will reveal how biological systems implement learning rules to produce a robust output under changing conditions and will inform the development of new algorithms.

NARRATIVE POSITION DESCRIPTION:

- Prepare resources, equipment, and materials
- Schedule, organize, and report on the status of activities
- Meet with supervisor on a regular basis to maintain ongoing communication regarding assigned tasks
- Be available on a regular basis to communicate with advisor and/or students
- Communicate students and generally be available to answer questions /concerns related to the tasks
- Work independently to solve technical and related issues
- Write and edit written materials