

Strategic Objective: Modernize Credibility Assessment

PROJECT DESCRIPTION		Modernize Credibility Assessment	
LINKED STRATEGIC GOALS AND OBJECTIVES		SO 4 Assessment Modernization	
KEY INITIATIVES IN DEVELOPMENT		SPONSOR(S) (b)(6)	
Initiatives		STATUS On Track	
University of South Carolina (USC):		RECENT ACCOMPLISHMENTS	
(A) Establishment of Research and Collaboration Center with USC to support emergent relationships.		- NCCA Research Division completed move to Cayce, SC facility. (b)(4), (b)(7)(E)	
(B) Non-contact blood pressure (BP) has been a long-term requirement that may now be technically feasible. Goal is to develop an automated non-contact beat to beat BP system. Current BP measurement devices employ an inflatable cuff that is restrictive, uncomfortable, and cannot detect many important cardiovascular CA indicators.		KEY PERFORMANCE INDICATOR(S)	
(C) Development of a CA corpus for natural language processing (NLP) with web-based capabilities, upgraded speech-to-text, and added sentiment analysis. These are essential steps in completing development of a computer-generated agent (CGA) that operates in a manner similar to human interaction with high visual fidelity and linguistic analysis capability.		BP: Accurately and reliably measure BP continuously during a 5 minute seated interview capturing BP information during 80% of all heart beats NLP – Sentiment Analyses - CGA: Development of a statistically reliable automated system for CA evaluation of vocal or written speech with an accuracy significantly better than chance, but ideally at 75% overall. Cloud-based and stand-alone applications required as is full fusion into the CGA.	
(D) Exploration of volatile organic compound (VOC) as biomarkers for CA applications. A VOC system would capture and analyze VOC emissions from human breath and skin and would serve as a viable alternative or augmentation method approaches in US government settings.		DEPENDENCIES	
		Dependency	
		Adequate annual funding.	
		Timely execution of acquisition/contracting packages.	
		FFRDC and DoE partner performance in assessing capability	