

ORI Research and Partnership

#	Project Title	Partner/Description
(b)(7)(E)		
6	Non-Contact Blood Pressure Measurement for CA	ARLIS – University of South Carolina (USC) / Developmental effort for the non-contact measure of beat-to-beat blood pressure. This will increase subject comfort, minimize undue impacts on the examination and improve the polygraph and CA process.
7	Natural Language Processing (NLP) for CA Corpus Development	ARLIS – USC / Creation of a large linguistic corpus of deceptive speech for algorithm development so that spoken and written speech can be assessed during interviews.
8	Cloud-Based Speech-to-Text/Transcripts Capabilities (Cloud STT)	ARLIS – USC / Creation of a system that can ingest data from a variety of audio and video formats, separate the speech of the interviewer and interviewee, convert the spoken words to properly labeled text and create transcripts.
9	Volatile Organic Compounds (VOC) Detection for CA	USC / Determine the viability of VOC detection, emitted from breath and skin, for CA and stress detection applications. Air Force Office of Scientific Research (AFOSR) has funded the acquisition of much of the equipment for these efforts.
10	Computer Generated Agent (CG Agent)	ORI / Upgrade the current ORI CGA that operates in a manner similar to human interaction with high visual fidelity and linguistic analysis capability. The new CGA be able to conduct mass screenings, subject interviews, background investigations and questionnaires able to assess levels of threat or deception of a subject. CGA will also mitigate the potential for bias.