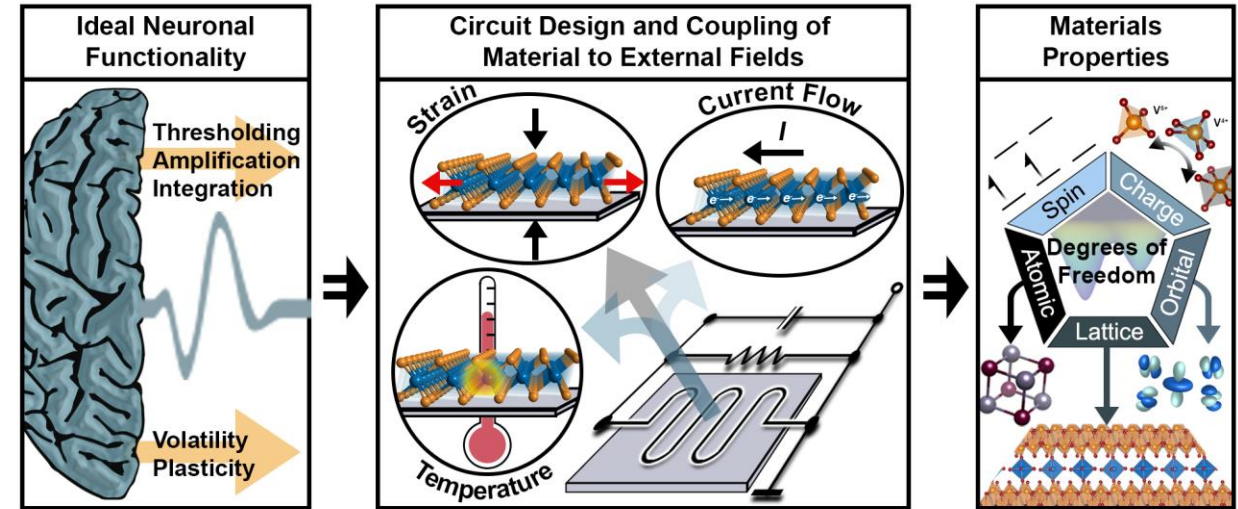


# Reconfigurable Electronic Materials Inspired by Nonlinear Neuron Dynamics (REMIND)

R. Stanley Williams (Texas A&M Engineering Experiment Station); Class: 2022-2026

**MISSION:** Establish foundational scientific knowledge underpinning the *function of reconfigurable materials, devices, and computing architectures* that approach *fundamental limits of energy efficiency and speed* to enable emulation of specific neuronal and synaptic functions of the human brain.



**RESEARCH PLAN:** REMIND will flip the current computing paradigm by blending inverse & forward design, material synthesis & manipulation, and development of advanced in-situ & operando characterization tools to connect dynamical material properties and underlying transformations in reconfigurable, nonlinear electronic materials. We will discover molecular/material building blocks and exploit fundamental mechanisms in new materials and at tailored interfaces that are required to emulate specific neuronal and synaptic functions and enable a new paradigm of brain-inspired computing.

<https://remind.engr.tamu.edu/> 



Texas A&M Engineering Experiment Station

