1006-93-57 **Rathnamalee Palamakumbura** (`rpalamak@math.ttu.edu`), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409, **Sanjeewa Maithripala** (`mugalan@yahoo.com`), Department of Mechanical Engineering, Texas Tech University, Lubbock, TX 79409, and **Wijesuriua Dayawansa*** (`wdayawansa@yahoo.com`), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409. *Generating Stable Travelling Pulses in Mems Arrays.* Preliminary report.

Control of large arrays of microactuators and sensors, are anticipated to be of much interest to the technological advances of tomorrow. Prominent among the requisite control tasks will be that of producing stable dynamic patterns. Here we address the problem of practical asymptotic stabilization of travelling pulses in a one dimensional array of microactuators. Solitons are used as models of travelling pulses. A method is described to embed descretized KdV equation in a microactuator array, and an essentially local feedback control scheme is developed, for the purpose of practical asymptotic stabilization of solitons. (Received January 31, 2005)