1046-05-874   **Stephen Hartke** (`hartke@unl.edu`), Department of Mathematics, University of Nebraska - Lincoln, 203 Avery Hall, Lincoln, NE 68588, and **Geir Helleloid*** (`geir@math.utexas.edu`), Department of Mathematics, The University of Texas at Austin, 1 University Station, C1200, Austin, TX 78712. *Reconstructing a Graph from its Vertex-Edge Incidence Graph.*

Brualdi and Massey introduced the incidence coloring number of a graph in order to study the strong chromatic index of multigraphs. The incidence coloring number of a graph G can be defined as the chromatic number of the vertex-edge incidence graph of G. The vertex-edge incidence graph is reminiscent of the line graph, and much work has been done on structural characterizations and recognition algorithms for line graphs. In this talk, we focus on an analogous recognition algorithm for vertex-edge incidence graphs that also allows the reconstruction of a graph from its vertex-edge incidence graph in O(m) steps, where the vertex-edge incidence graph has m edges. (Received September 12, 2008)