Abstract:

"In Benson and Flook the unpatentable algorithm is software. But it is recognized that an algorithm may take the form of hardware or software. In another case, In Re Alappat, the Federal Circuit had acknowledged the possibility that a patent on a circuit could read on a computer programmed with software and that this could make the algorithm unpatentable. They eventually ruled the circuit was patentable on the basis that they thought (among other things) the algorithm was not a mathematical algorithm in the sense of Benson, Flook and Diehr but this doesn't change the fact that they first considered the possibility of going the other way. (Also note the dissenting opinions in Alappat, which raised precisely the danger of patenting mathematical discoveries.)

"The court in Diehr held an industrial process to cure rubber that uses an algorithm is patentable. This court made a distinction between the algorithm and a non-algorithmic process that comprises the algorithm as one of its elements. This article discusses a specific aspect of this issue. Could a patent on a circuit, as in Alappat, or a patent on physical computational activity, such as in Benson and Flook, be considered patents on an abstract idea? This is a notion that has a sound basis in mathematics. The purpose of this article is to explain this basis and show some possible problems that occur when one does not take it into consideration."