1024-94-5 **Nigel Boston***, University of South Carolina. *Novel and applications of algebra to engineering.* The mathematics employed by electrical engineers has traditionally been analysis in the form of probability theory, differential equations, etc. More recently abstract algebra has been increasingly used. It appears in well-known applications to the accuracy and security of transmissions (coding/cryptology) and also in less familiar but popular areas of engineering, which this talk will survey. (Received June 09, 2006)