

SE&T Colloquium Series-Fall 2012

Speaker	Dr. Olivier Heubo-Kwegna Department of Mathematical Sciences
Title	<i>J-Semisimplicity in BCK-Algebras</i>
Abstract	<p>The topic of this talk is motivated by the notion of Jacobson radical in ring theory. The idea of the Jacobson radical of a ring R is an ideal J containing some “bad” elements of R such that R/J is well-behaved or easier to work with. One of its applicable instances is in the celebrated Nakayama Lemma studied in most graduate algebra courses.</p> <p>In this talk, we introduce the notion of units in BCK-algebras and use it to obtain a new characterization of implicative BCK-algebras. The notion of the Jacobson radical of a bounded BCK-algebra is also introduced (as the intersection of all maximal ideals) along with a characterization of the Jacobson radical in terms of units. A BCK-algebra is J-semisimple if its Jacobson radical is zero. We discuss the J-semisimplicity of some classes of BCK-algebras, for instance it will be shown that bounded multiply implicative BCK-algebras are J-semisimple. A result stating that the direct product of J-semisimple BCK-algebras is again J-semisimple will lead to an open problem regarding the relationship between the Jacobson radical of the product and the product of the Jacobson radical.</p> <p>The talk is accessible to all students taking upper level math classes.</p>
Date	Tuesday, November 6
Time	4:10-5:00pm
Place	Pioneer 240
	Refreshments will be served at 4:00pm.