The focus of this article is the rings $R$ for which $u - u^n$ belongs to the Jacobson radical for all units $u$ of $R$, where $n \geq 1$ is a fixed integer. Such rings are called $n$-UJ rings. The structures of these rings are known if $n = 1$ or 2. As well as, we study the $n$-UJ property under some algebraic construction, the trivial extension and the Morita context of $n$-UJ rings are obtained. This recent result with a joint work Tamer Kosan, Truong Cong Quynh and Jan Žemlička [4] among these lines will be presented.

References

[4] M. T. Koşan, Truong Cong Quynh, Tulay Yıldırım and Jan Žemlička, Rings in which the form $u - u^n$ of units belongs to the Jacobson radical, Algebra Colloquium, in press.