We construct indecomposable division algebras over function fields of smooth curves $X$ over $\mathbb{Z}_p$. This is done by defining a morphism $s : \text{Br}(\hat{K}(X))' \rightarrow \text{Br}(K(X))$, where $K(X)$ is the completion of $K(X)$ at the special fibre, and using it to lift indecomposable division algebras over $\hat{K}(X)$. (Received September 19, 2009)