**SCOPE:**

The private level is created by replacing black modules with specific textured patterns. These textured patterns are considered as black modules by standard QR code reader. Thus the private level is invisible to standard QR code readers. In addition, the private level does not affect in anyway the reading process of the public level. The proposed 2LQR code increases the storage capacity of the classical QR code due to its supplementary reading level. Experiment results show that the storage capacity is improved by up to 28% . The storage capacity of the 2LQR code can be improved by increasing the number of textured patterns used or by decreasing the textured pattern size.