

## Technological innovation in modern digital television image

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### Abstract:

The television image has become one of the most important tools of visual communication and self-expression in contemporary cultures, and has entered the modern video production techniques in various fields. With the development of digital systems for the production of television image, technological innovation has become an essential part in the production of modern television image. The research covers the latest technology in the television image industry from the production stage, and even the display on different screens.

The research problem stems from how to obtain the highest possible quality of television image in various stages and even display on the screen? and how to choose devices and tools and modern methods to ensure that?

The research aims mainly to identify the latest equipment and modern technology in the manufacture of television cameras as well as the development in the broadcasters and television.

The research is presented to the high dynamic range video technology, which is going to be the biggest qualitative change in TV quality since color, offering the better contrast, greater brightness levels, a wider color palette and the maximum depth possible, which increases the creative space of the various television productions.

The research has displayed the technology of modern television screens and their ability to display the high-quality television image in full detail (Light Field capture system) and the emergence of a new generation of television screens in a new technology different from the previous one, that carries high degrees of quality, high color accuracy, high contrast and ability to deal with modern television systems.

The study recommends the need to follow the latest global technology in the TV image to be applied at the local level and the consequent fundamental changes in the broadcasting, transmission and reception systems to keep abreast of the fundamental changes in the television image industry. It is also recommended that symposia, conferences and external missions should be conducted to increase the awareness, in order to achieve the highest possible creative space in the fields of television production.

### Keywords:

Resolution – 8k – HDR – QLED – TV technology