Automated Phantom Image Assessment for Medical Imaging Applications

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SUMMARY

UCLA researchers in the Department of Radiology have developed a method for automated calibration of phantom images.

BACKGROUND

Phantom imaging is a routine procedure used in different medical imaging methods such as magnetic resonance imaging (MRI), computerized tomography (CT), positron emission tomography (PET) and ultrasound. Regular quality assurance checks are required for phantom images to verify the software accuracy. Typically, it involves a user marking a region of interest on the image and comparing the image parameters with predefined image specifications. The results are then recorded manually in a database. With increasing use of imaging applications in medical facilities, there is an unmet need for an automated system for phantom image assessments.

INNOVATION

UCLA researchers have developed a fully automated method for phantom image quality assurance. Their method reduces user time and effort such that the quality assurance process is streamlined and can be easily customized according to need. Additionally, the automated nature of the process obviates the need for an imaging expert to perform the assessment. The method significantly will be particularly useful in clinical and research settings.

APPLICATIONS

- Automated quality assurance of phantom imaging

ADVANTAGES

- Completely automated and flexible
- Faster than a manual assessment
- Easy to use and no technical expertise in imaging required

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OTHER INFORMATION

KEYWORDS

Phantom Imaging, PET, CT, MRI, Ultrasound, automated calibration

CATEGORIZED AS

- **Medical**
  - Imaging

RELATED CASES

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