Imaging 4.0: Intelligent and Flexible Ultrasound Imaging

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<td><u>Flexible array ultrasound imaging:</u>
• Novel flexible array designs for conformal, wearable and continuous imaging
• Deep learning-based non-linear image reconstruction
• Computational imaging (e.g. imaging of tissue stiffness/attenuation, dynamics of blood flow)</td>
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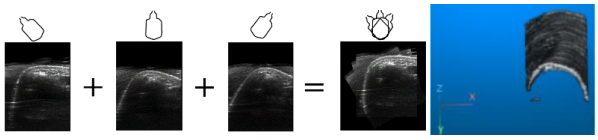
<td>  </td>
<td><u>3D multi-perspective imaging:</u>
• Autonomous robotic scanning for multi-view retro perspective reconstruction.
• High frame rate image acquisition and registration
• Algorithms for 3D reconstruction and rendering</td>
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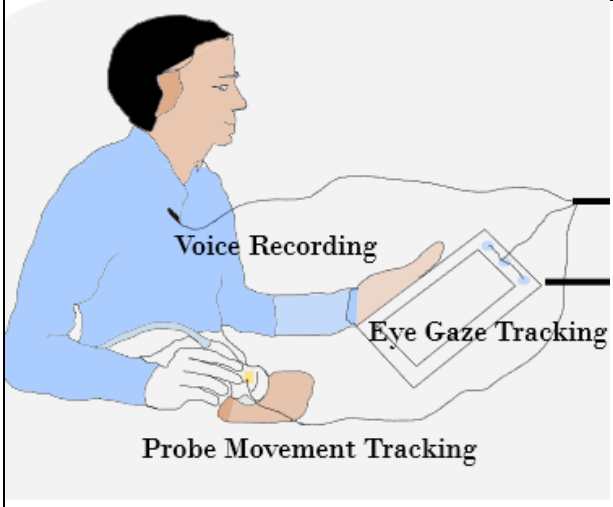
<td> 
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<td><u>Automated and aided imaging:</u>
• Novel active learning incorporated image annotation and guidance
• Reinforcement learning-based unsupervised image (picture) archiving system</td>
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<td colspan="2">Collaborators:

Industry partners: GE Healthcare, Fujifilm Visualsonics, Vexev,

Academic Partners: University of Alberta, National University Hospital (NUHS), A*STAR IMRE, A*STAR SICS</td>
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