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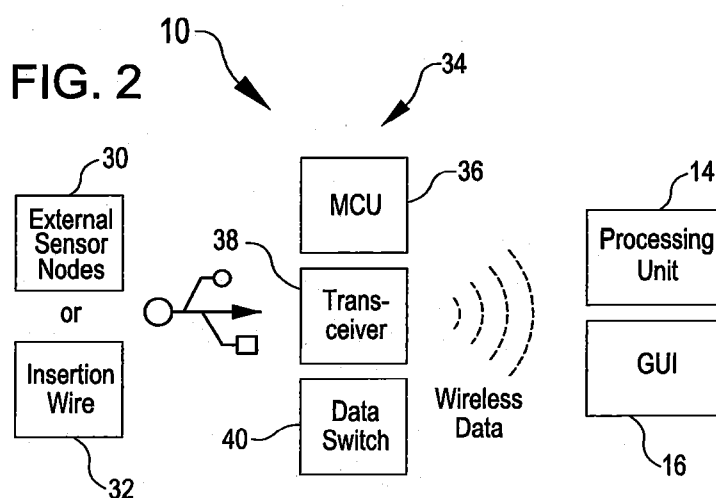
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[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR TRACKING AND DISPLAYING ENDOSCOPE SHAPE AND DISTAL END ORIENTATION



(57) Abstract: Systems and methods for tracking shape and orientation of an endoscope employ motion tracking sensors to track locations on the endoscope for use in determining real time shape and distal end orientation for display during navigation of the endoscope. An example system includes sensor units distributed along the endoscope and a control unit. The sensor units track motion of the endoscope locations and transmit resulting tracking data to a control unit. The control unit processes the tracking data to determine shape of the endoscope and orientation of the distal end of the endoscope. The control unit generates output to a display unit that causes the display unit to display one or more representations indicative of the shape of the endoscope and orientation of the distal end of the endoscope for reference by an endoscope operator during an endoscopic procedure.



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