



**Dr. Md. Mahub Hasan**

Professor

**Research Area** Optical Interferometry

Analysis of short time spectra of the natural signal

## Education

## Biography

I am a Professor in Electrical and Electronic Engineering department, KUET with main focus of mathematical modeling and inverse problem solutions.

## Research Interest

### Optical Interferometry

Developing algorithms for parameter extraction from interferometric images

### Analysis of short time spectra of the natural signal

Exploring relations of short time Fourier coefficients and polynomial transform coefficients

## Publication

### Books

### Journals

- Hasan, M. M., Teramoto, K. and Tanemura, S. (2013), "Windowed Fourier assisted two-dimensional Hilbert transform for fringes phase extraction," **Optik - International Journal for Light and Electron Optics**, Elsevier, vol124, no.19, pp.3996-40
- K. Teramoto, K., Hasan, M. and MD.T.I. Khan, M. (2013), "Dynamic shear-strain analysis of A0-mode Lamb wave field over the plate-like structures," **Acoustical Imaging**, no.32
- Teramoto, K. and Hasan, M. (2012), "Sub-surface elastography based on the dynamic shear strain analysis," **The Journal of the Acoustical Society of America**, Acoustical Society of America, vol131, no.4, pp.3290
- Hasan, M., Islam, M. and Teramoto, K. (2012), "Crystallographic orientation-dependent optical properties of GaInSb mid-infrared quantum well laser," **Optik - International Journal for Light and Electron Optics**, Elsevier, vol123, no.21, pp.1993-1999
- Hasan, M. M. and Islam, M. R. (2010), "Numerical study on optical and electrical properties of strained GaInSb/GaInAlSb mid-infrared quantum well laser," **Optical and Quantum Electronics**, Springer, vol42, no.4, pp.251-262
- Islam, M. R., Hasan, M. M., Chen, N., Fukuzawa, M. and Yamada, M. (2010), "Raman scattering study of vibrational modes and hole concentration in  $Ga_{x}Mn_{1-x}Sb$ ," **Semiconductor Science and Technology**, Institute of Physics, vol25, no.9, pp.095010

### Conference

- Hasan, M., Tanemura, S. and Teramoto, K. (January 2013), "Mathematical modeling of mirror based passive moire target for orientation sensing," **The Eighteenth International Symposium on Artificial Life and Robotics**, Artificial Life and Robotics
- K. Teramoto, K., Hasan, M. and Miyanari, T. (20-23 Aug. 2012), "Dynamic shear-strain analysis of A0 mode Lamb wave field in composite materials with through holes," **Annual Conference SICE**, SICE & IEEE, pp.2024 - 202
- K. Teramoto, K., Inoue, R. and Hasan, M. M. (June 2011), "Acoustical Near-field Imaging by Dynamic Strains Analysis over the Guided Wave field," **Ultrasonic Imaging and Tissue Characterization**, Proc. of Ultrasonic Imaging and Tissue Characterization 2011
- Hasan, M. and Islam, M. (11-12 May 2010), "Crystal orientation-dependent optical properties of mid-infrared GaInSb/GaInAlSb quantum well laser," **ICCCE 2010**, IEEE
- Hasan, M. and Islam, M. (11-12 May 2010), "Strain-dependent optical properties of mid-infrared GaInSb/GaInAlSb quantum well laser," **ICCCE 2010**, IEEE
- Hasan, M. M., Islam, M. R., Chen, N. F. and Yamada, M. (20-22 Dec. 2008), "Raman spectroscopic determination of hole density in diluted magnetic semiconductor  $Ga_{x}Mn_{1-x}Sb$ ," **ICECE 2008**, IEEE, pp.821 - 826
- Hasan, M. M., Islam, M. R., Chen, N. F. and Yamada, M. (20-22 Dec. 2008), "Vibrational modes in  $Ga_{x}Mn_{1-x}Sb$  studied by Raman spectroscopy," **ICECE 2008**, IEEE, pp.816 - 820