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WebPages

http://sites.google.com/site/keshavdevsingh/research iitb uwo http://en.wikipedia.org/wiki/User:Keshav Dev Singh

DOB & Nationality

Date of Birth: 03-07-1985, New Delhi, India; Citizenship: Indian

Education and Professional Qualification

Ph.D./Doctorate'(Pursuing): "Hyperspectral Remote Sensing", Department of Earth Sciences, Indian Institute of Technology (IIT) Bombay, Powai, Mumbai-76, India. Registered date: August 2009 to Present. Marks: 9.63/10 CGPA in course work. Specialization- Remote Sensing, Satellite Image Processing, Radar system, InSAR, GIS, GPS in Space and Geosciences.

M.Tech. (Master of Technology): "Engineering Physics", School of Basic and Applied Sciences, Guru Gobind Singh Indraprastha University, New Delhi, India. Marks: 79.30%, First class with distinction, June 2009. Specialization- Embedded System, Nanotechnology, Computational Physics, Operational Research, Energy Technology.

M.Sc. (Master of Science): "Physics", Department of Physics & Astrophysics, Delhi University, New Delhi, India. Marks: 66.40%, First class, June 2007. Specialization—Astrophysics, Plasma Physics, Adv. Mathematics, Quantum Mechanics, Nuclear Physics.

B.Sc. (Bachelor of Science): "**Physics (Honors)**", Department of Physics, Hindu College, Delhi University, India. Marks: 73.50 First class with distinction, June 2005. Specialization- Electronics, Mathematical Physics, Solid State Physics, Chemistry.

Position Held and Fellowships Awarded

Awarded International Canadian Commonwealth Fellowship (**DFAIT-GSEP**) from March 2011 to October 2011 under Prof. Lalu Mansinha and Prof. Kristy F. Tiampo of The University of Western Ontario, London, Ontario, CANADA.

Ph.D. Studentship: MHRD Research Assistantship, Govt. of India, August 2009 to present

- Thesis Topic: Hyperspectral Remote Sensing
- Supervisor: D.Ramakrishnan, Associate Professor, IIT Bombay, Mumbai, India. Postgraduate Project Trainee: Project Fellow, Indian Institute of Technology Delhi, New Delhi, India (February 2009 June 2009)
- Thesis Topic: Synthesis of Gallium filled Indium Oxide Nanothermometer prepared by Resistive chemical vapor deposition and characterization by XRD/SEM/HRTEM/EDX techniques.
- Supervisor: Prof. J. P. Singh, Associate Professor, IIT Delhi and Dr. S. Mohapatra, Assistant Professor, GGSIPU, New Delhi, India.

Current Research Areas

Algorithmic development for features extraction (target detection) and sub-pixel abundance estimation on spectral unmixing of hyperspectral satellite Imagery.

Research Interests

Remote Sensing Applications in Geosciences like Satellite Image Processing (SIP), Interferometric Synthetic Aperture Radar (InSAR), Global Positioning System (GPS), Atmospheric Remote Sensing, Monitoring Global Climate Change, Military Operations, Minerals and Hydrocarbon Exploration.

Publications & Reports

- D.Ramakrishnan, Nithya, M, Bharti, R. and **Singh, K.D.** (2011), "Efficacy of Field Spectroscopy in Rapid Lithological identification and Mineral Prospecting: A case study of Mamandur Polymetal Prospect, India", SEG Geophysics, GEO-2011-0427 (In press).
- D.Ramakrishnan, Nithya,M. Bharti,R., Kusuma,K.N and **Singh,K.D.** (2011), "Measurement of thermal properties of select intact and weathered granulites and their relationship to influence properties", SEG Geophysics (In press).
- D.Ramakrishnan, Radhika, N., **Singh, K.D.**, Bharti, R. (2011), "A Fast Procedure for Field and Satellite Spectral Deconvolution and its Ramification in Automated Detection of Materials", Geosummit-2011 (In press).
- Ramakrishnan, D., Bharti, R., **Singh, K.D.**, Nithya, M (2012), "Compositional Diversity of Naonobu Crater Area: Inferences from Chandrayaan-1 Moon Mineralogy Mapper (M3) Data", Icarus (Comm).
- Singh,K.D., D.Ramakrishnan, and Mansinha, L., "Feature Extraction and Abundance Estimation via Discrete Wavelet Transform (DWT) for Linear Unmixing of Hyperspectral Data," National workshop on Wavelets, Multiresolution, and Multifractal Analysis in Earth, Ocean and Atmospheric Sciences. Proceedings Volume-I, IIT Bombay, India, Feb. 29 Mar. 02, 2012.
- Singh K.D., González P.J., Tiampo K.F., "Observations of Mount Sinabung, Indonesia volcanic eruption and ground deformation using StaMPS-A new technique of InSAR data processing", Geomatrix'12, Proceedings Volume-I, CSRE, IIT Bombay, India, Feb. 26 29, 2012.

Book Published (Oct. 2011)

Synthesis and Characterization of Nanothermometer: A New Generation Gallium Filled Indium Oxide Nanothermometer-Simple Design and More Accurate, LAP-Lambert Academic Publishing, Germany (**ISBN-13**: 978-3-8465-2514-2).

Memberships

Student Membership - Society of Exploration Geophysicists (SEG), USA Student Membership - American Association of Petroleum Geologist (AAPG), USA

Honors and Awards

- University Gold Medalist-2009, GGSIP University, New Delhi.
- Certificate of Merit (Vivekananda Award) for Excellent Performance in Matriculation (10th) and Intermediate (12th) Schooling.
- Certificate of participation in English Communication Skill, The University of Western Ontario, London, Ontario, Canada.
- Ph.D representative (AURAA), Department of Earth Sciences, IIT Bombay, Mumbai, India.
- Member of the Organizing committee HYPERSPECTRA-2010, 2011 Department of Earth Sciences, IIT Bombay, Mumbai, India.

Technical and Computer Skills

- Image Processing Tools: MATLAB-R2010a, ERDAS IMAGINE 9.3, ENVI+IDL 4.6, ArcGIS 9.3
- Operating Systems: Windows XP/ Linux (Red Hat)
- Programming Languages: Pascal, C/C++, VB 6.0, Mathematica
- Software Packages: MS-Office, Photoshop, SQL Server 2005/ Oracle 9i
 Electronics Software's: Assembly (8085/8051 Microcontroller/ AVR)
- Certificate in .NET (APTECH) and Core Java (NIIT)

Extracurricular Activities/Interests

- Playing Computer Games, Swimming, Football, Chess.
- Reading Newspapers and Internet Surfing.
- Travelling, Photography, and Music.Table Tennis, Aerobics, Yoga.

Languages Fluent to English and Hindi; Comprehension in Punjabi.

Travels International Travel to North America - Niagara Falls, Grand Band Beach, Pelee Island

and Bruce Peninsula National Park.

Professional Dr. Jitendra Pratap Singh Dr. D. Ramakrishnan References Associate Professor, Associate Professor,

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PLACE: Mumbai, India DATE: 20/01/2012

(Keshav Dev Singh)