



**K.L.E. Society's**  
**SHRI KADASIDDHESHWAR ARTS COLLEGE**  
**AND**  
**H. S. KOTAMBRI SCIENCE INSTITUTE**  
**VIDYANAGAR, HUBBALLI-580031 (Karnataka State)**  
*(Re-Accredited by NAAC at 'A' Grade with 3.18 CGPA)*

**Unnat Bharat Abhiyan: Participating Institute**  
**IQAC Initiative**

**National Level**  
**Mathematics Webinar Report**

**Topic: “*Mathematics is Everywhere*”**

**Organized by**

**Department of Mathematics**

**on**

**12-05-2020 at 11.30 AM**

**Venue: Online (Free Conference Call Platform)**

**Dr. C. S. Hiremath**  
P.G. Co-ordinator

**Prof. S. N. Emmi**  
IQAC Co-ordinator

**Dr.(Smt.) Prabhavati S.Mandalgeri**  
Organizing Secretary

**Organizing Members**  
Dr. Archana M  
Miss. Seema Patil

**Dr. L.D. Horakeri**  
Principal

**Resource Person**  
**Dr. Ravindra Hegadi**  
Associate Professor  
Dept. of Computer Science  
Central University of Karnataka, Kadaganchi  
Kalaburagi.



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**IQAC Initiative**

**NATIONAL LEVEL WEBINAR**

**ON**

**"MATHEMATICS IS EVERYWHERE"**

**ORGANIZED BY**

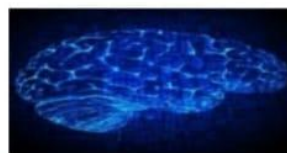
**DEPARTMENT OF MATHEMATICS**



**About the Seminar:**

**It is theme for the International Day of Mathematics (IDM) on March 14, 2020.**

- ♦ We **travel the world** guided by precise mathematical calculations based on the position of the sun, stars and GPS satellites.
- ♦ We explore the **inside of the human body** through CT scans and MRI by building images out of numerical data through mathematical algorithms.
- ♦ We discover how **human thought** works by building **AI** software that can learn and make decisions through mathematic models.
- ♦ The Fourier transform allows us to split a complex sound wave into many simple ones. Without mathematics there would be no iPods, Spotify or iTunes.
- ♦ Billions of people use the internet every day, for example using **search engines** like Google. It can use linear algebra, probability, and graph theory to find the most popular sites.



**Mathematics in image processing**

**Speaker**

**Dr. Ravindra Hegadi**

**Associate Professor**

**Dept. of Computer Science**

**Central University of Karnataka, Kadanagalli  
Kalaburagi**

**Organizing Members**

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**PRINCIPAL**

Dr. L. D. Horakeri

**ALL ARE CORDIALLY INVITED**

**Join Cisco WebEx meetings**

**Meeting ID: 913392134**

**Password : 3UpCXXDy**

**On 12<sup>th</sup> MAY 2020 TIME:11.30 AM**



WebEx Meetings

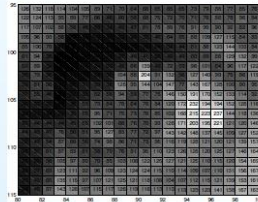
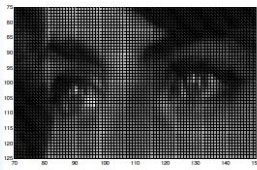
**Free  
Reg.**

**E-certificate for all Participants**

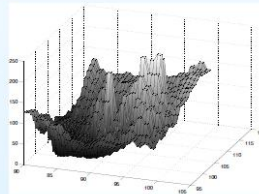
# Photo Gallery

## Numerical Images

discrete grid

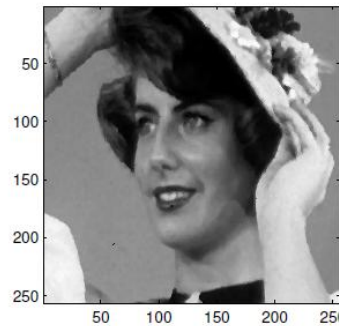
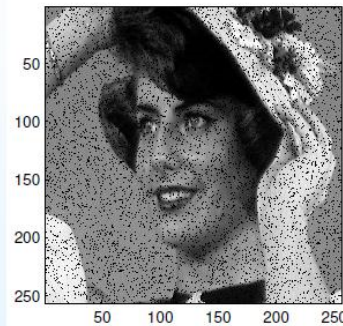


grid of numbers or pixels



relief or function

## Median Filter



The Median Filter is non linear, gives quite good results but needs a sorting algorithm.

### Total Variation Minimization (cont.)



original image



denoised image



