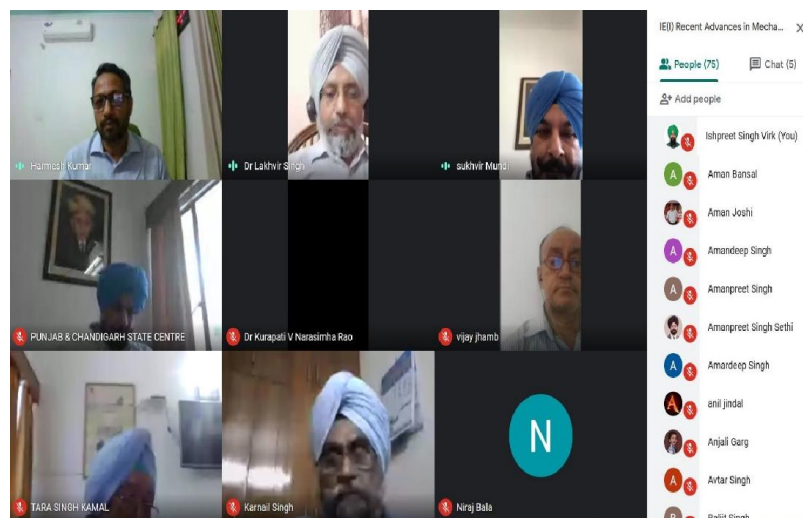
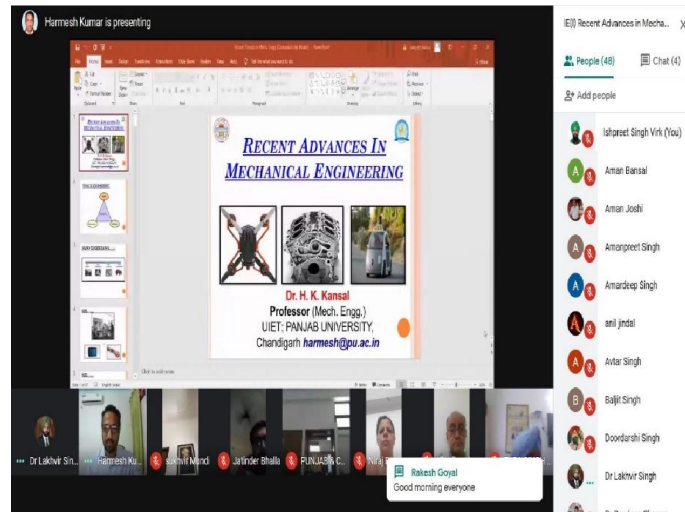


## Details of webinar Organised by Mechanical Engg deptt

1. Webinar on “Recent Advances in Mechanical Engineering”, in collaboration with The Institution of Engineers (IE, India) on 16th July 2020. Dr Harmesh Kumar Kansal, Professor, UIET, Panjab University, speaker for the event,



2. Webinar on “Ergonomics for Work from Home in Covid-19 Pandemic” in collaboration with The Institution of Engineers (IE, India), on 21st July 2020. Dr. Lakhwinder Pal Singh, Associate Professor, NIT, Jalandhar, was speaker for the event. Around, 120 participants registered and attended the webinar on the google meet app.

*“A Century of Service to the Nation”*

**The Institution of Engineers (India)**  
*(Established in 1920 and Incorporated by Royal Charter in 1935)*

**Punjab & Chandigarh State Centre**  
In Collaboration with

*Department of Mechanical Engineering  
Baba Banda Singh Bahadur Engineering College  
Fatehgarh Sahib (Punjab)*

**Technical Talk cum Webinar**  
(Through “google meet” App)

Speaker  
**Dr Lakhwinder Pal Singh**  
Associate Professor, NIT, Jalandhar

Topic:  
**Ergonomics for Work from Home  
in Covid-19 Pandemic**

**Date: 21st July 2020 (Tuesday)**  
**Time: 11:00 A.M. to 12:00 Noon.**

Meeting Link:  
<https://meet.google.com/lpr-oxkj-gfw>

**Dr. Lakhvir Singh,**  
Professor & Head  
Department of Mechanical  
Engineering, BBSBEC

**Dr. Niraj Bala,**  
Associate Professor, BBSBEC  
Committee Member, ME Division  
IE(I) Punjab & Chandigarh State Centre

For Registration Contact: **Dr. Gurpreet Singh (99151-20080)**

**Dr. Baljit Singh Khehra, FIE**  
Hon. Secretary, IE (I)  
Punjab & Chandigarh State Centre,  
Professor in CSE, BBSB Engineering College,  
Fatehgarh Sahib (PB)

**Er. Sukhvinder Singh Mundi, FIE**  
Chairman, IE (I)  
Punjab & Chandigarh State Centre  
Sector 19-A, Chandigarh

3. Webinar on “Realization of Functionally Graded Materials in Modern Orthopedic Medicine” in collaboration with The Institution of Engineers (IE, India) on 14<sup>th</sup> August 2020. Dr. Mohammad Talha, Associate Professor, School of Engineering, IIT Mandi (HP) was the speaker of the session. Around, 110 participants registered and 57 participants attended the webinar on the google meet app.

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Punjab & Chandigarh State Centre  
Engineers Bhawan, Madhya Marg, Sector 19-A, Chandigarh.

**In Collaboration with**

  
*Department of Mechanical Engineering,  
Baba Banda Singh Bahadur Engineering College,  
Fatehgarh Sahib (Punjab)*

Invites you to attend  
**Technical Talk cum Webinar**  
(Through “Google meet” App)

 Meet

  
**Key Speaker**  
*Dr. Mohammad Talha*  
Associate Professor, School of Engineering, Indian Institute of Technology,  
Mandi (H.P.)

**Topic: “Realization of Functionally Graded Materials in Modern Orthopaedic Medicine”**

**Date: 14<sup>th</sup> August, 2020**  
Time: 5.00 to 6.00 p.m.

**Meeting Link:**  
<https://meet.google.com/sxf-rizn-exz>

**Presided Over by :**  
*Dr. Lakshvir Singh*  
Professor & Head, Department of Mechanical Engineering  
Baba Banda Singh Bahadur Engineering College (Fatehgarh Sahib)



  
**Dr. Baljit Singh Khehra, FIE**  
Hon. Secretary, IE(I)  
Punjab & Chandigarh State Centre,  
Professor in CSE, BBSB Engineering College,  
Fatehgarh Sahib (PB)

  
**Er. Sukhvir Singh Mundi, FIE**  
Chairman, IE(I)  
Punjab & Chandigarh State Centre  
Sector 19-A, Chandigarh

VoLTE 72% 5:38 pm

### Mathematical Modelling of Porous scaffold

The diagram illustrates the hierarchical structure of a porous scaffold. It starts with a natural bone structure, which is broken down into bone tissue, then into hierarchical structures (micro, meso, macro), and finally into a porous scaffold. The scaffold is composed of cells and a porous structure. The scaffold is used for bone regeneration, leading to bone regeneration.

Ref: <https://www.mdpi.com/2078-4984/9/11/900/full>

(57)

Deepinder Singh >

Dr Lakhvir Singh >

Dr Sandeep Sharma >

Dr. Gagandeep Jagdev >

Scaffold

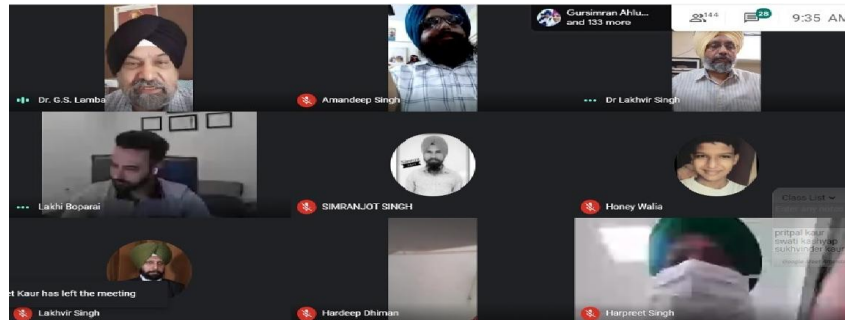
- > An artificial structure which is used to replace the bone lost due to trauma or disease
- > Scaffolds act as substrate for cellular growth, proliferation and support of new tissue formation
- > A typical porosity of 90% as well as a pore diameter of at least 100  $\mu\text{m}$

The diagram shows a bone with a defect and a porous scaffold and cell seeding. The scaffold is used for bone regeneration. The components of a scaffold are ceramic scaffold, polymer matrix, cells, and bioactive molecules.

Figure: Bone scaffold

Ref: Li, J.J., Kaplan, D.L. and Zreigat, H., 2014. Scaffold-based regeneration of skeletal tissues to meet clinical challenges. Journal of Materials Chemistry B, 2(42), pp.7272-7296.

4. Webinar on “Mechanical Engineers in Aerospace Sector” on 7th September 2020. Er Lakhwinder Singh Boparai, Engineering Manager, Boeing, USA, an alumnus of Batch 1998-2002 was the speaker for the webinar. Around, 170 participants comprising



- Webinar on the topic “Vehicle Crash safety in Automotive Sector” on 14th September 2020. Dr Vishal Gupta, Technical Lead-Pedestrian Protection, General Motors, USA, was the speaker for the session. Around, 140 participants registered and attended the webinar on the google meet app.

