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(71)**Name of Applicant :**
1)Mr. Kapil Gill
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
2)Dr. Vaibhav Trivedi
3)Mr. Shashank Kumar
4)Mr. Prashant Sharma
5)Mr. Prashant Kumar
6)Mr. Mayank Bharadvaj
7)Mr. Vivek Shankhdhar
8)Mr. Mohammad Javed
9)Mr. Ayush Saxena
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Mr. Kapil Gill
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
2)Dr. Vaibhav Trivedi
Address of Applicant :Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
3)Mr. Shashank Kumar
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
4)Mr. Prashant Sharma
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
5)Mr. Prashant Kumar
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
6)Mr. Mayank Bharadvaj
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
7)Mr. Vivek Shankhdhar
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
8)Mr. Mohammad Javed
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------
9)Mr. Ayush Saxena
Address of Applicant :Assistant Professor, Mechanical Engineering Department, IFTM University, Moradabad, Uttar Pradesh - 244102 Moradabad ---------- ----------

(57) Abstract :
The present invention relates to the focuses mainly on titanium-based alloys, even though there exist biomaterials made up of ceramics, polymers and composite materials. The paper discusses the biomechanical compatibility of many metallic materials and it brings out the overall superiority of Ti based alloys, even though it is costlier. As it is well known that a good biomaterial should possess the fundamental properties such as better mechanical and biological compatibility and enhanced wear and corrosion resistance in biological environment, the inuence of alloy chemistry, thermomechanical processing and surface condition on these properties. In addition, this also discusses in detail the various surface modication techniques to achieve superior biocompatibility, higher wear and corrosion resistance. Overall, an attempt has been made to bring out the current scenario of Ti based materials for biomedical applications.

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