



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET47382, entitled  
Theoretical Approach to Investigate Temperature Dependent Ultrasonic and  
Thermophysical Properties of Ti-Zr-Hf Ternary Alloy*

*by  
Ramanshu P. Singh*

*after review is found suitable and has been published in  
Volume 10, Issue XI, November 2022  
in*

*International Journal for Research in Applied Science &  
Engineering Technology  
(International Peer Reviewed and Refereed Journal)  
Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



10.22214/IJRASET



TOGETHER WE REACH THE GOAL  
SJIF 7.429



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET47382, entitled  
Theoretical Approach to Investigate Temperature Dependent Ultrasonic and  
Thermophysical Properties of Ti-Zr-Hf Ternary Alloy*

*by  
Shakti Yadav*

*after review is found suitable and has been published in  
Volume 10, Issue XI, November 2022  
in*

*International Journal for Research in Applied Science &  
Engineering Technology  
(International Peer Reviewed and Refereed Journal)  
Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET47382, entitled  
Theoretical Approach to Investigate Temperature Dependent Ultrasonic and  
Thermophysical Properties of Ti-Zr-Hf Ternary Alloy*

*by  
Devraj Singh*

*after review is found suitable and has been published in  
Volume 10, Issue XI, November 2022  
in*

*International Journal for Research in Applied Science &  
Engineering Technology  
(International Peer Reviewed and Refereed Journal)  
Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429



ISSN No. : 2321-9653

# IJRASET

**International Journal for Research in Applied  
Science & Engineering Technology**

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : [www.ijraset.com](http://www.ijraset.com), E-mail : [ijraset@gmail.com](mailto:ijraset@gmail.com)

## Certificate

*It is here by certified that the paper ID : IJRASET47382, entitled  
Theoretical Approach to Investigate Temperature Dependent Ultrasonic and  
Thermophysical Properties of Ti-Zr-Hf Ternary Alloy*

*by  
Giridhar Mishra*

*after review is found suitable and has been published in  
Volume 10, Issue XI, November 2022  
in*

*International Journal for Research in Applied Science &  
Engineering Technology  
(International Peer Reviewed and Refereed Journal)  
Good luck for your future endeavors*

*By [Signature]*

Editor in Chief, IJRASET

ISRA  
JIF

ISRA Journal Impact  
Factor: 7.429



45.98  
INDEX COPERNICUS



THOMSON REUTERS  
Researcher ID: N-9581-2016



TOGETHER WE REACH THE GOAL  
SJIF 7.429