

ISSN 2321-6557

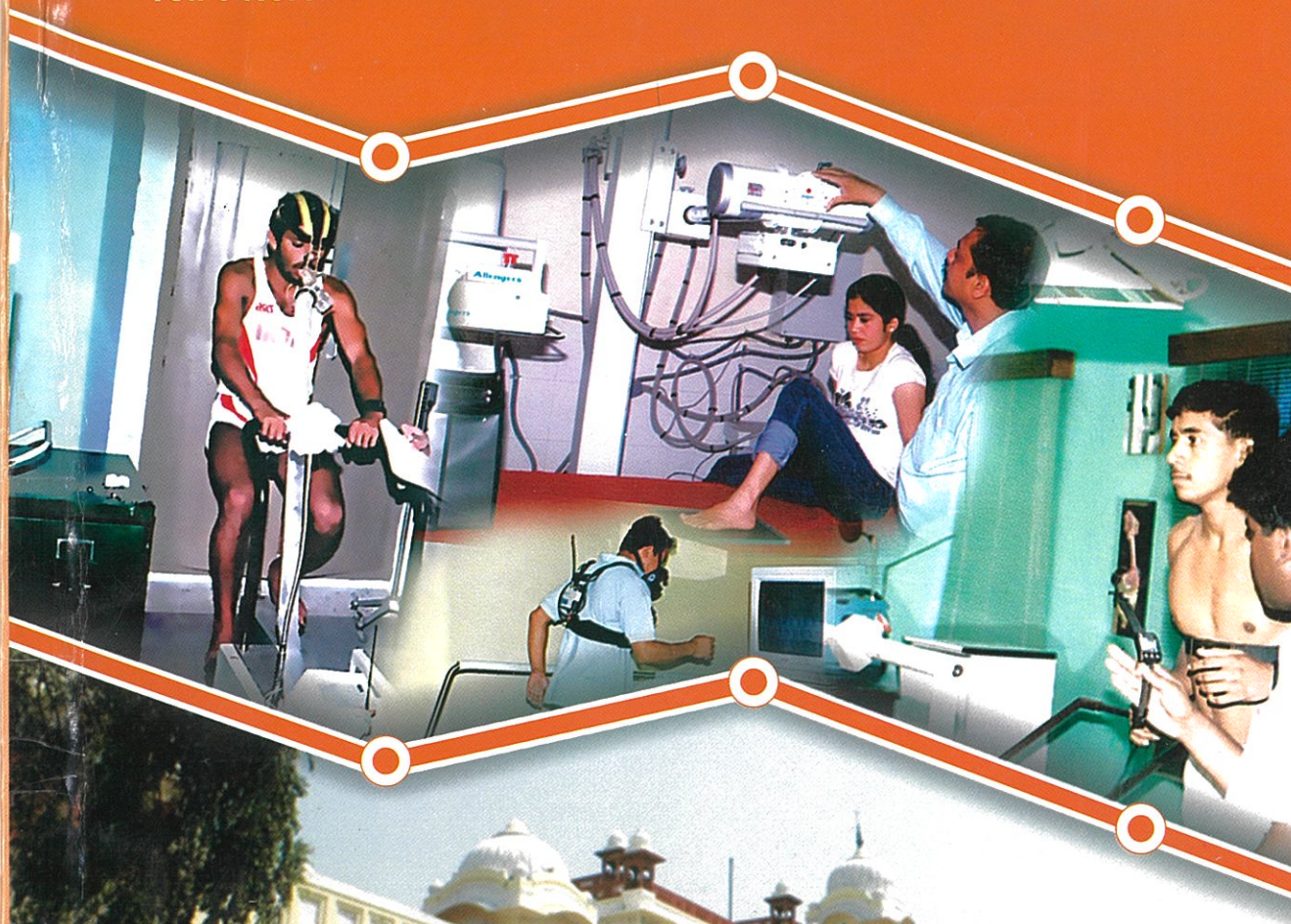
RNI NO. : PUNENG/2012/47863

Sports Research

Quarterly

Vol. 5 No.4

October 2016



SPORTS AUTHORITY OF INDIA
Netaji Subhas National Institute of Sports
Patiala Website: <http://www.nsnis.org>

SPORTS RESEARCH

The Quarterly Research Journal on Sports & Sports Science

Editor-in-Chief : **Dr. S.S. Roy**
Editor : **Dr. Rajdeep Kaur**

Printed and Published by
SAI Netaji Subhas National Institute of Sports, Patiala
Printed at Phulkian Printing Press Pvt. Ltd.,
Books Market, Patiala

RNI Regn. No. PUNENG / 2012 / 47863

Copyright © SAI Netaji Subhas National Institute of Sports

Telephone : 0175-2394306 Fax: 0175-2212070

E-mail : mail@nsnis.org, Website : <http://www.nsnis.org>

Subscription Rates

INDIA

SAI Coaches & Scientists.....	Rs. 250/- per Annum
NIS Students and outsiders.....	Rs. 300/- per Annum
	Rs. 550/- two years
	Rs. 800/- three years
Single Copy & Old issues-----	Rs. 60/- per copy

FOREIGN

By Air Mail.....	US\$ 60 per annum
By surface mail.....	US\$ 45 per annum
Single copy & old issues.....	US\$ 15 per copy

The rates are subject of change without any notice.

CONTENTS

**Analysis of Dipa Karmakar's Performance on
Vault Event in Rio 2016 Olympics**

Dr. Kalpana Debnath, Dr. Gurdial Singh Bawa

5

**Assessment of Selected Motor Fitness Components of
Football and Hockey Players**

Dr. Usha Rani

10

**Comparison of Mental Health between College Level
Sportspersons and Non-Sportspersons of Himachal Pradesh**

Dr. Hari Singh

13

**Hamstring and Quadriceps Muscle Groups of
Track and Field Jumpers**

Simarjeet Singh, R.Kalidasan, Jasmail Singh

20

**Comparison of Maximum Strength of Kicking and
Non-Kicking Leg of Football Players at University Level**

Dr. Usha Rani

25

Macronutrients Intake Among Table Tennis National Players

Shivani Sharma, Parul Tyagi, Pooja Gaur

27

The Physique of Junior National Male Kabaddi Players

Yumnam Momo Singh, Jaswinder Singh, R.K. Talwar, Annu Pathania

33



SPORTS AUTHORITY OF INDIA
Netaji Subhas National Institute of Sports
MOTI BAGH, PATIALA, INDIA



Information for Subscribers / Contributors

- The Sports Research, an official organ of the Sports Authority of India Netaji Subhas National Institute of Sports, is a quarterly Journal Published in the months of January, April, July and October.
- The Journal publishes original research and review articles on sports and allied sports sciences.
- The subscription should be renewed promptly. The publishers cannot guarantee the supply of back issues, on belated renewals.
- Any change of address must be notified immediately.
- Remittances should be made through bank draft, in the name of 'SAI NSNIS, Patiala', payable at Patiala.
- All correspondence concerning business and editorial matters should be addressed to the Managing Editor, Sports Research, SAI NSNIS, Motibagh, Patiala-147 001, India.
- Subscription rates are subject to change.
- The copyright of the published material rests with the Publishers. Any reproduction of the material, in any manner, requires prior permission of the Publishers.
- The authors are responsible for the correctness of the facts mentioned in the articles and advertisements. Acceptance of the advertisement material does not imply endorsement.
- The opinions expressed in the articles are of the authors and not necessarily those of the Publisher.

Editorial

Editor- in Chief

Dr. S.S. Roy

*

Editor

Dr. Rajdeep Kaur

*

Consultant Editor

Surjeet Singh Dhaliwal

*

Editorial Board

Dr. M.D. Ranga
Sports Biomechanics

Dr. Jaswinder Singh
Anthropometry

*

Managing Editor

Vineet Kumar

*

Editorial Assistant

Rohtash Sharma

*

Assistant (Circulation)

Neeta Rani

This issue of the Journal carries seven research articles on different sports science subjects.

The lead article analyses the Rio 2016 Olympics Performance of Ms. Dipa Karamkar, the first Indian Women gymnast qualified for participation in Olympics. The researchers find out that Dipa had the highest 'Difficulty Score' than all the other finalists and it was 0-30 greater than the 'Difficulty Score' of the 1st and the 2nd ranking gymnast. However, she had the lowest 'Execution Score' than all the other 7 competitors; and it was 2.700 less than the first ranking gymnast Simone Bites. The authors conclude that Dipa Karamakar has a lots of scope for improving her 'Execution Score' further, in both the vaults.

The second article investigates the selected motor fitness components of male Football and Hockey Players of Kurukshetra University. The results indicated significant difference in explosive leg strength and agility but no significant difference was found between selected motor fitness components of Football and Hockey players.

In the third article the author compares the mental health of college level sportspersons and non-sportspersons of Himachal Pradesh. The researcher finds significant difference in sportspersons and non-sportspersons in overall adjustment, autonomy, intelligence, and total mental health whereas no significant difference was found in components of emotional stability, security-insecurity, and self-concept.


The authors of the fourth article studied the strength of hamstring and quadriceps muscle groups of Track & Field jumpers and concluded that there was a significant difference between quadriceps and hamstring strength and hamstring/quadriceps ratio of dominating and non-dominating side of the muscles. Authors also observed a non-significant difference between the dominating and non-dominating side hamstring muscle group strength and a non-significant difference in angle of peak torque between dominating and non-dominating side muscle groups.

The author of the fifth article compares the maximum leg strength of kicking and non-kicking leg of Football players, at the University level tournaments and finds out that the maximum strength of the kicking leg was greater than the non-kicking leg of Football players.

The authors of the sixth article make assessment of the anthropometric data and macronutrient intake of Table Tennis national players and in view of the results they conclude that adequate nutritional counseling is required to address the nutrient intake of the players for optimizing their performance.

The last article is an anthropometric study of the physique of junior national male Kabaddi players. The researchers found that the junior players were shorter, lighter, with smaller width of femur, lesser girth of upper arm and leaner in skinfold thickness of subscapular than the senior players, as reported in an earlier study.

I hope, you will find these presentations useful and interesting.


Dr.S.S.Roy
Editor-in-Chief