### UNESCO CHAIR/UNITWIN NETWORK PROGRESS REPORT FORM

Title of the Chair/Network:	UNESCO Chair in Inclusive Adapted Physical Education and Yoga (1004)
Host Institution:	RAMAKRISHNA MISSION VIVEKANANDA EDUCATIONAL AND RESEARCH INSTITUTE (RKMVERI), (
	Belur, Howrah-711202, India.
Date of establishment of Chair/Network: (mm, yyyy)	December 2012
Period of activity under report: (mm, yyyy - mm, yyyy)	June 2018 to April 2019
Report established by: (name, position)	Dr. Asis Goswami, Chairholder and Dean, Faculty of General and Adapted Physical Education & Yoga; Head of the Department of Sports Science.

To be returned by electronic mail to both: unitwin@unesco.organd i.nichanian@unesco.org

Or by mail to UNESCO, Division for Teacher Development and Higher Education, Section for Higher Education

7, place Fontenoy – 75352 Paris 07 SP, France
Fax: 33 (0)1 45 68 56 26/27/28

### 1. Executive Summary:

Major outcomes, results and impact of the Chair, including on national policies, in relation to its objectives as stated in Article 2 of the Chair Agreement (between the Institution and UNESCO) (Not exceeding 300 words)

The UNESCO Chair activities took a larger dimension through renewal of the Chair till 2021. In addition to the ongoing academic programmes related to adapted physical education and sports in two campuses of the University, a number of well cherished targets were achieved. The new dedicated five-storeyed building for teaching and research in the field of Sports Science and Yoga was inaugurated, three major research laboratories were established and two more design registration applications were submitted. A number of collaborative agreements through Memoranda of Understanding (MoU) with academic and professional bodies were signed. The network of academic collaboration was thus enlarged. It is matter of gratification and joy that the University has been accredited by National Assessment and Accreditation Council (NAAC) of India with a A++ Grade (the highest grade), as per the results declared in their website on 28 March 2019, with a Cumulative Grade Point Average (CGPA) of 3.66 (out of 4) making our University rank SECOND in the whole country among the higher educational institutions accredited by NAAC in their Revised Accreditation Framework. Preparations are afoot to start postgraduate programmes in Sports Science and Yoga, for which state-of-the-art laboratories are being developed and high quality research and teaching faculty are being recruited. These programmes will be started from the academic session 2019-10 and it is expected that in the next two years research will also become visible through publications in high quality research journals.

#### 2) Activities:

Overview of activities undertaken by the Chair during the reporting period

#### a) Education/Training/Research

(key education programmes and training delivered and research undertaken by the Chair during the reporting period, target group and geographical coverage)

i) Education (leading to certificate)

1. The following courses are being conducted by the Faculty of General and Adapted Physical Education and Yoga(FGAPEY) of the University on a regular basis:

Ph.D.

Master of Philosophy (M.Phil.)

Master of Physical Education (M.P.Ed.)

Bachelor of Physical Education (B.P.Ed.)

Bachelor of Science in Physical Education (B.Sc.)

Diploma in Physical Education

**2.** The following courses are being conducted by the Faculty of Disability Management and Special Education (FDMSE) of the University, Coimbatore, on regular basis:

Ph.D. in Special Education [Visual Impairment (VI), Hearing Impairment (HI), Mental Retardation (MR)]

M.Phil. in Special Education (VI, HI, MR)

## Other Courses running with the recognition/approval of the Statutory Body names 'Rehabilitation Council of India (RCI)'

M.Ed. in Special Education (VI, HI, MR)

B.Ed. in Special Education (VI, HI, MR)

D.Ed. in Special Education (VI, HI, MR)

DSLI – Diploma in Sign Language Interpretation

(VI-Visual Impairment, HI-Hearing Impairment, MR-Mental Retardation)

In addition Diploma in Theatre Arts for Holistic Development and Certificate course in Assistive Technology were also conducted.

### Academic courses in Main Campus at Belur Math:

The Department of Sports Science and Yoga is conducting the following programmes at present:

- 1. Integrated M.Phil.-Ph.D. in Sports Science
- 2. Post Graduate Diploma in Yoga
- 3. Certificate Course in Basic Ayurveda, Panchakarma and Naturopathy (CBAPN)
- 4. Certificate Course in Yoga (CCY)
- 5. Outreach programme in Yoga for Health and Wellbeing

Two more Post graduate level academic programmes being introduced from the 2019-20 session. These are four-semester (two-year) fulltime programmes:

- a) M.Sc. in Sports Science
- b) M.A./M.Sc. in Yoga

### ii) Training(short term)

1. Dr. Goswami participated and delivered lectures at the Athletic Coaches Association of Bengal on "A few scientific considerations for running events" in August 2018. This lecture was aimed at providing solutions to specific issues related to analysis of performance of the sports persons. About 30 coaches had attended the programme.



Dr. A. Goswami in an extension service programme at Athletic Coaches Association of Bengal tent.

2. Training sessions were conducted to provide Yoga practice for students. This activity includes teaching of Asana for healthy living and wellbeing. This has started from 15 January and would continue till 30 April 2019, in the gymnasium of the Belur Campus.

### iii) Research

1. The plan of establishing research laboratory for Sports Science and Yoga at the Belur Campus was successfully executed. The construction of the new five-storeyed building christened "Atma-Vikas" (meaning Self-development) dedicated to Sports Science, Yoga and Fitness was completed and the building inaugurated. A number of research equipment were acquired and installed in the three laboratories which have started functioning. A brief description of the activities in these laboratories is given below:

### a) Exercise Physiology Laboratory

This laboratory will carry out research in the field of exercise physiology and also serve as testing centre for fitness related to sports. The laboratory will be fully equipped by phases with the state-of-the-art equipment. Among these, the following equipment have been already installed and are functioning:

- i) Bicycle Ergometer (Monarch)
- ii) Body composition Analyser
- iii) High resolution weighing scale (Avery)
- iv) Polar Heart rate monitors V800 model
- v) Polar heart rate transmitter H7 model
- vi) Skin fold calliper Betty Model
- vii) Skinfold calliper Cescorf model
- ix) Precision Measuring tape Cescorf model
- x) Anthropometer
- xi) Spreading calliper

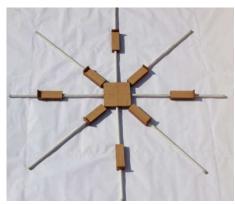
# b) Biomechanics and Adapted Sports (Sports for the Disabled) Laboratory

For experiments related to biomechanics and adapted sports field:

- i) Open space type laboratory for study of various types of sports activity
- ii) GoPro Hero 7 model Camera for high frame speed video recording
- iii) Indigenously built equipment for innovative experiments
- iv) Software available: Tracker and Kinovea

### c) Yoga and Meditation Study laboratory

- i) Portable EEG equipment
- ii) Multi-channel Bio-potential recorder
- **2.**Two more designs were developed for testing the fitness of disabled sports persons. Intellectual Property registration application has been submitted to the IP Office in Kolkata.
- a) Balance test equipment for the Blind persons



b) Trunk Flexibility test equipment



The following four doctoral research projects leading to Ph.D. degree have been initiated at the Belur Campus:

- 1. Effect of General and Specific Training on Anthropometric Profile and Cardiorespiratory Endurance of the Cricketers by the scholar named Ankur Biswas
- 2. Exploring Spatial Perception of Visually Impaired Through Auditory and

Other Feedback by the scholar named Bankim Biswas

- 3. Effect of various combinations of yogic practices on physical performance of non-sport and sport persons by the scholar named Gopinath Bhowmik Bhunia
- 4. Studies on heart rate variability during various sporting activities by the scholar named Subhashis Biswas

### b) Conferences/Meetings

(Key conferences and meetings organized by the UNESCO Chair or to which the Chairholder contributed)

A national seminar on "Scientific Approach to Sports Performance and Assessment" was organized on 15-16 March 2019 at the Belur Campus. The following two eminent persons delivered invited talk in the seminar:

- i) Dr. Ajay Bansal, Former Chief Coach, Hockey India
- ii) Dr. Mantu Saha, DIPAS DRDO, New Delhi.

A special lecture was held through videoconference, delivered by Dr. Pralay Majumdar, Sports Authority of India, Bangalore

This seminar included workshops in the field of Exercise physiology and Biomechanics. About forty students from different universities attended the seminar.



i) Key conferences and workshops hosted by the Chair

A National Conference on "Global Trends in Assistive Technology and Adapted Sports" – 15 & 16 March 2019 was held by the Faculties of GAPEY and FDMSE at Coimbatore.

A total of 172 delegates attended the conference. Fifty delegates presented papers on various themes related to the conference in three parallel sessions on two days. This included 17 from FDMSE and 33 from GAPEY.



- ii) Other conferences/organizational activities undertaken by the Chairholder None
- iii) A selection of conference presentations by the Chairholder and other colleagues

The following special lectures were delivered by faculty members and the Chairholder during the national seminar in the Belur Campus.

Prof. U.S. Ray - Mountaineering as a sport: emerging trends of applications of high altitude physiology;

Prof. Rupayan Bhattacharya – Principles of Biomechanics;

Prof. Asis Goswami - Technical aspects of Tests in Exercise Physiology;

Prof. Asok K Ghosh – Anaerobic threshold: Its importance in High performance sports.

- c) Interuniversity Exchanges/Partnerships (principal exchanges/partnerships between the Chair and other institutions including UNESCO Chairs/UNITWIN Networks)
- 1. Dr. Asis Goswami, the UNESCO Chairholder, has initiated collaborative academic exchange programme with the Department of Physiology and the Department of Sports Science of Calcutta University. Memorandum of Understanding is being processed between the two universities for collaborative academic and research activities. The students of Sports Science courses had attended classes at the RKMVERI campus.
- 2. A team officials and professors from Visva Bharati, a Central University, visited the RKMVERI campus on 28 June 2018 to discuss possible academic collaboration in form of student exchange and holding of Joint Conferences & Workshops. The work related to these activities are in progress.



- 3. Memorandum of Understanding was signed with the following organizations for mutual learning and exchange activities
- a) FEDERAZIONE ITALIANA YOGA, Italy. (Italian Yoga Federation)
- b) Krishnamacharya Yoga Mandiram (KYM), Chennai

d) Publications/Multimedia Materials				
(major publications and tea	aching/learning materials)			
Please tick relevant fields of output and indicate volume of output:	Books Books (edited) Books (chapters) Monographs Research Reports Journal Articles (refereed) Conference Proceedings Occasional Papers Teaching/Learning Materials Multimedia Materials (CD-Rom) Multimedia Materials (Video) Multimedia Materials (Other)	[tick]	[no.] Six (M.Phil. Dissertation) Two	
Cive details of major publi	, ,	oitati	one	
	cations and materials including full	Citali	UIIS.	
i) Theses				

- ii) Publications
- 1. Prasad, T., Goswami, A., Ghosh, S. (2019). Walking Pattern of Sighted Volunteers with Open Eye and Closed Eye Conditions, Journal of Disability Management and Special Education (JODYS).(Accepted for publication).
- 2. Prasad, T., Ghosh, S., Goswami, A. (2018). Static Balance Ability of Visually Impaired and Partially Sighted Persons on Firm and Foam Surfaces, European Journal of Adapted Physical Activity. (Under Review).

### Conference Paper

- 1. Prasad,T., Ghosh,S., Goswami, A.(2018). Static Balance Ability in Blind Persons, National Conference on "Physical Education, Sports Science & Active Lifestyle" Organized by Department of Physical Education, SavitribaiPhule Pune University, Pune.
- 2. Prasad, T., Goswami, A., Ghosh, S. (2019). Star Excursion Balance Test For Visually Impaired and Partially Sighted People, National Seminar Cum Workshop On "Scientific Approach To Sports Performance And Assessment" Organized By Ramakrishna Mission Vivekananda Educational And Research Institute, Belur Math, Howrah.
- e) Cooperation with UNESCO Headquarters, Field Offices

The UNESCO New Delhi office had organized a two-day Consultation from 10 – 11 December 2018 in New Delhi to build a more informed & active network of UNESCO Chairs in India and also to brainstorm and share ideas on the role of UNESCO Chairs in strengthening work of UNESCO. The UNESCO New Delhi Director Eric Falt welcomed all the participants at UNESCO House, which was followed by the screening of a Film on UNESCO's 70 years in India. Dr. Asis Goswami could not travel due to acute illness, however, Swami Atmapriyananda, the Vice Chancellor of RKMVERI, attended the programme. The second-day programme was organized at PRIA campus and was organized by Dr. Rajesh Tandon. The UNESCO New Delhi Director, Eric Falt gave a detailed presentation and highlighted key activities undertaken by the different sectors in the New Delhi Office. Dr. N. Saravana Kumar, Joint Secretary (ICC), Ministry of Human Resource Development (MHRD) thanked UNESCO for organizing the meeting and highlighted the need to engage meaningfully with the UNESCO Chairs in strengthening the programmes and policies of MHRD.

The Chairholders participated in a brainstorming session for enhancing the collaborative activities with UNESCO New Delhi.

The some of the salient points arising from the discussion were

- Proposal for formation of e-groups of UNESCO Chairs was placed to increase knowledge sharing, networking and frequent meeting.
- Utilization of indigenous resources and ideas was highlighted;
- Funding from external agencies, specially from UNESCO, was emphasized for increased freedom and scope of activities



(Picture taken from <a href="http://unescochair-cbrsr.org/index.php/2018/12/18/unesco-chairs-meeting-india/">http://unescochair-cbrsr.org/index.php/2018/12/18/unesco-chairs-meeting-india/</a>)

f) Other (any other activities to report)

1.An event was organized by Italian Yoga Federation dedicated to their teachers and students. Swami Atmapriyananda, Vice Chancellor of RKMVERI, delivered a talk "Comments on the Bhagavad Gita" on 10 March 2019, in the Conference Room of the Embassy of India, Rome.

### Antonietta Rozzi visited the University and delivered a lecture in November 2018..

2.International Day of Persons with Disabilities was observed on 08 December 2018 at GKD Auditorium, SRK Vidyalaya, Coimbatore. Dr. Sudha, Asst. Prof., FDMSE, welcomed the gathering. Swami Bakthivrathananda, SRK Vidyalaya gave the benedictory address, Swami Divyaprajnananda Maharaj, Asst. Admin. Head, graced the occasion. The Chief guest of the programme was Mr. V.G. Jagadeesh, Web Developer & Graphic Designer, Coimbatore. Cultural and oratorical programmes were performed by children with special needs. Medals were distributed to children with disabilities who won first prize in various sports events. Persons with disabilities who are studying and working in Vidyalaya institutions were honored. Teachers working for persons with disabilities were also honored. In total 132 persons with disabilities had participated in the event.





3. Week for Holistic Welfare of the Children from 14 Nov, 2018 to 20 Nov, 2018

A number of activities were organized by Faculty of Disability Management and Special Education (FDMSE), Coimbatore Campus, in partnership with Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI), Belur, West Bengal and globally with ARIGATOU International, Japan. The events included in this week were a nature walk, art and craft related activities, community orientation, cultural performance, storytelling, field trip, screening wildlife movies, practical exposure to adapted yoga and unified sports, and talk on self-help skills, safety measures, health and hygiene, and environmental care. A large number of children with disabilities had participated in this programme. A two-day training programme for parents of children with disabilities wasalso conducted along with this programme.





4. In order to complement the education imparted on various theoretical aspects of yoga, the students were taken to a 10-day internship to Krishnamacharya Yoga Mandiram (KYM), Chennai.



Group photo of students with the Br. Mrinmay Maharaj at KYM campus

- 5. A programme 'The Resurrection of Yoga' Yogasanas demonstration was held at Belur Math 12 Mar 2019. This programmed was live streamed through by Belur Math.
- 6. On 31 Oct, 2018, Revered Swami Smaranananda Maharaj, President of Ramakrishna Math and Ramakrishna Mission, inaugurated the New Building 'Atma-Vikas' for Sports Science, Yoga & Fitness Centre in the presence of Monks of Ramakrishna Mission, Department's Faculty and students at the Belur Main Campus. The building also houses major laboratories required for research in the field of Sports Science and Yoga.



The laboratories has already started providing scientific support to the sportspersons.



Testing of athletes by Dr. A. Goswami, Dr. A.K.Ghosh, Dr. K.Pal and Students

- 7. 4th International Day of Yoga was observed at the Belur Main Campus on 21 June 2018.
- 8. Yoga Camp in the State of Jharkhand. The students of PGDY course went to Ranchi campus of the university to conduct Yoga camps in different villages of Jharkhand state.



Yoga camp in progress in a village of Jharkhand

9. Ramakrishna Mission Vivekananda Educational and Research Institute, Faculty of General & Adapted Physical Education and Yoga organized Unified Play Day was celebrated on 21<sup>st</sup> February 2019.



10. National Level Wheelchair Tennis Tournament (Paralympic Sports Competition) Ramakrishna Mission Vivekananda Educational and Research Institute, Faculty of General and Adapted Physical Education & Yoga, had organized a wheelchair tennis training and coaching camp at TENNIS INDOOR STADIUM for the Tamilnadu State Wheelchair tennis probable team of 8 members during 18.05.2018 to 20.05.2018.



11. Ramakrishna Mission Vidyalaya Coimbatore Organized RKMV Trophy 1st state level Tournament in Adapted Sports on 06<sup>th</sup> December 2018 to 08<sup>th</sup>December 2018 at Vidyalaya indoor stadium for Para sitting volleyball and Visual impaired Volleyball, Polytechnic Handball court, for five a side football and ITI Ground for Para sitting Cricket.





### 12. Inclusive Sports Meet- 2019

Inmates of different hostels in the campus of RKM Coimbatore organized Inclusive Sports Meet. About 120 students from different colleges of the campus took part in different inclusive sports activities. Parents of the disabled students came in large number to encourage the participants.



### 3. Future Plans and Development Prospects:

Outline of action plan for the next biennium and short/medium and long-term development prospects.

Please do not hesitate to refer to difficulties that the Chair has experienced (Not exceeding 300 words)

Majority of the future plans were realized during the present year. The following activities is planned to be executed in the next one year:

1.Sensory Park: A plan for this project is ready. Possible funding sources are being identified. In the mean time the building design is being copyrighted and design registered.

2. Proposal for a Co-Chair has been placed to the UNESCO office. Once this proposal
is approved, a number of new initiative will be taken. Academic programme for
Paralympic Sports and a Master degree in Adapted Sports are to be started.

### Appendix:

1	) H	lum	an	Res	sol	irces
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- a) Six fulltime faculty and one adjunct faculty in Department of Sports Science and Yoga, Belur Campus.
- b) Ten fulltime faculty / staff in Faculty of Disability Management, Coimbatore campus c) Nine fulltime faculty / staff in Faculty of General and Adapted Physical Education, Coimbatore campus.

2) Financial Resources				
Please tick sources of financial contribution and specify the amount in U.S. dollars	Host Institution Partner Institution Government Body Other Public Institution/Body (incl. Research Councils) UNESCO Other UN Agency IGO NGO Industry Other Private	[tick]	Amount (Rs.) (approximate) 50,00,000.00  80,00,000.00  nil  nil  nil  nil  nil  nil  nil  n	
Give details of finan	icial contributions, material resou	irces and	d space.	

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