Ramakrishna Mission Vivekananda Centenary College

(Autonomous)

Rahara, North 24 Parganas, West Bengal: 700118



Affiliated to West Bengal University

College with Potential for Excellence RUSA-funded Institution DST-FIST Awarded College

Website: www.rkmvccrahara.org

☐ Email: <u>rkmvccollege@kmvccrahara.org</u>

Report on professional development / administrative training
Programmes organized by the institution for teaching and nonteaching staff during the year 2020-2021

Rahara
Kolkata - 118 Rahara

Professional Development Progamme:

Date	Title of the Seminar / Workshop	Speaker Details
1 st July, 2020	Online FDP on STEM Education and Then What? organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara	Prof. Subhasish Choudhry, Director; IIT Bombay

Objective of the seminar:

- a) To aware about the Science, Technology, Engineering, and Mathematics (STEM) and its application.
- b) To implement the it in research and teaching to develop creativity, critical & logical thinking skills. **Outcome:**
- a) Promoted creativity and thinking.
- b) It helped in cultivating problem-solving skills.
- c) Got idea to implement it in teaching and research.

Participants teachers: 15

He discussed facts and a method of thinking which can be applied by students to solve real world problems.



1 st July, 2020	Online FDP on Yantra, Tantra, Mantra, organised by Department of Physics, Ramakrishna Mission Vivekananda Centenary College, Rahara	Sri Tapan Misra, Former director, Space Application centre, Department of Space, ISRO
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- a) To aware about the Science of Yantra, Tantra, Mantra.
- b) To implement the it in research and teaching.

Outcome:

- a) Promoted in constructive purposes to achieve peace and prosperity.
- b) Got idea to implement it in teaching and research.

Participants teachers: 15

He discussed the significance of ritual and meditation to purify and energize our being thus bringing a deeper awareness of our spiritual existence.



3rd July, 2020

Online FDP on "Molecular Detection of Diabetes Mellitus from Exhaled Breath Analysis" organised by Department of Zoology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Chiranjit Ghosh, Postdoctorate Research Fellow, Division of Infectious Disease, Harvard Medical School/BWH, Harvard University

Objective of the seminar:

- a) To understand the developments and challenges in exhaled breath analysis for diabetes diagnosis and monitoring.
- b) To implement the it in research and teaching.

Outcome

- a) Highlighted the prospect and application of Molecular Detection of Diabetes Mellitus from Exhaled Breath Analysis.
- b) Got idea to implement it in teaching and research.

Participants teachers: 11

He discussed the relevance of exhaled breath analysis through critical assessment of current technologies and recent advancements in sensing methods to address the shortcomings associated with blood glucose monitoring.



3rd July, 2020

Online FDP on "Biophysics of protein folding aggregation in Neurodegenerative diseases" organised by Department of Botany, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Sumanta Ghosh, Postdoctoral Research Fellow, University of Texas, USA

Objective of the seminar:

- a) To understand the Biophysics of protein folding aggregation in neurodegenerative diseases.
- b) To implement the knowledge in research and teaching.

Outcome:

- a) Enriched with the knowledge on the importance of protein folding aggregation in neurodegenerative diseases.
- b) Got knowledge to implement it in teaching and research.

Participants teachers: 11

He discussed the biophysical approaches that explain the formation of aberrant conformational states of proteins whose neurotoxic effects underlie neurodegenerative disorders.



22nd July, 2020

Online FDP on Career prospects for students in higher education in the basic sciences - a contemporary perspective organised by Department of Chemistry, Ramakrishna Mission Vivekananda Centenary College, Rahara

Prof. Sarit K. Das, Director, Indian Institute of Technology (IIT)Ropar

Objective of the seminar:

- a) To aware about the Career prospects for students in higher education in the basic sciences.
- b) To implement the knowledge in guiding students.

Outcome:

- a) Gained information and knowledge about Career prospects for students in higher education in the basic sciences.
- b) Got idea to transmit information towards student.

Participants teachers: 11

He discussed the career opportunities which students may avail in the fields of research and teaching.



22nd July, 2020

Online FDP on "Algorithm Design: An Overview of Recent Advancement" organised by Department of Computer Science, Ramakrishna Mission Vivekananda Centenary College, Rahara

Prof. Diptarka Chakraborty, Assistant Professor, National University of Singapore

Objective of the seminar:

- a) To aware about the recent advancement in algorithm design.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Enriched about the recent advancement in algorithm design.
- b) Got idea to implement in teaching and research.

Participants teachers: 6

He discussed the ways of developing an algorithm that can quickly identify new data patterns and then targeting new ads based on this data.



23rd July, 2020

Online FDP on Capacity Building for students organised by Department of Computer Science, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Anujit Chakraborty, Assistant Professor of Economics, University of California, Davis

Objective of the seminar:

- a) To aware about the importance and prospect of capacity building for students.
- b) To implement the knowledge in improving students' capacity.

Outcome:

- a) Improved knowledge about the importance and prospect of capacity building for students.
- b) Got idea to convey information in improving students' capacity.

Participants teachers: 21

He discussed the development of competencies and skills that can make students more efficient and sustainable, thus increasing the potential for charitable non-profits to enrich lives and solve

society's most interactive problems.



24th July, 2020

Online FDP on Teaching in higher education
organised by Department of Microbiolo

organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara **Prof. Santanu Choudhury**, Indian Institute of Technology (IIT) Jodhpur

Objective of the seminar:

- a) To aware about the techniques of teaching in higher education.
- b) To implement the knowledge in teaching quality enhancement.

Outcome:

- a) Improved knowledge about the teaching techniques in higher education
- b) Got idea to implement the knowledge in teaching for quality upgradation.

Participants teachers: 31

He discussed the development of competencies and skills that can make students more efficient and sustainable, thus increasing the potential for charitable non-profits to enrich lives and solve society's most interactive problems.



29th August, 2020 Online FDP on Mathematics and Mathematical Sciences Topic: **Are We Prepared to Accept the**

Topic: Are We Prepared to Accept the Reality?

organised by Department of Mathematics, Ramakrishna Mission Vivekananda Centenary College, Rahara **Prof. Ravi P. Agarwal**, Texas A & M University-Kingsville.

Objective of the seminar:

- a) To aware about the various mathematical problems.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the critical problems in mathematics.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6



26th September, 2020

Online FDP in **Microbiology** organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College,

Prof. Pratip Kumar Kundu, Director Calcutta School of Tropical Medicine

Objective of the seminar:

- a) To aware about the recent techniques, methods and career prospects in microbiology.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the recent techniques, methods and career prospects in microbiology.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers:5

He discussed the varied applications of Microbiology in our daily lifestyle and its advances and career prospects that the students can pursue.



28th September, 2020

Online FDP in **Chemistry** organised by Department of Chemistry, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Ashok Kumar Mishra, Professor and Dean Academic Research, Department of Chemistry, IIT Madras.

Objective of the seminar:

- a) To aware about the importance of Chemical Sciences in the in the growth and development of industries.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the importance of Chemical Sciences in developing industrial skill.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 11

He discussed the important roles that Chemical Sciences play in the growth and development of a number of industries in our society.



29th September, 2020 Online FDP of Zoology of the college organised by Department of Zoology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Prof. Arun Bandyopadhyay, Director, Indian Institute of Chemical Biology (IICB)

Objective of the seminar:

- a) To aware about the importance and prospect of studying Zoology at college level.
- b) To implement the knowledge in teaching and research.

Outcome

- a) Improved knowledge about the importance the importance and prospect of studying Zoology at college level.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 8

He discussed the gain of understanding the natural world and how can we help with the conservation of fauna.



30th September, 2020

Online FDP for Mathematics of the college

organised by Department of Mathematics, Ramakrishna Mission Vivekananda Centenary College, Rahara Prof. Asok Kumar Nanda, Indian Institute of Science Education and Research-(IISER) Kolkata

Objective of the seminar:

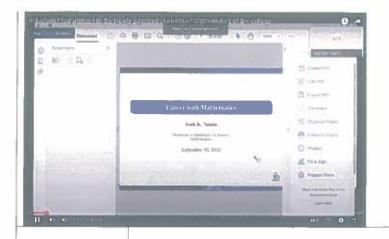
- a) To aware about the importance and prospect of studying Mathematics at college level.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the importance the importance and prospect of studying Mathematics at college level.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6

He discussed the effective ways of building mental discipline and encouraged logical reasoning and mental rigor.



1st October, 2020 Online FDP of Physics of the college organised by Department of Physics, Ramakrishna Mission Vivekananda Centenary College, Rahara

Prof. Rajesh Gopakumar, International Centre for Theoretical Sciences (ICTS-TIFR), Bengaluru

Objective of the seminar:

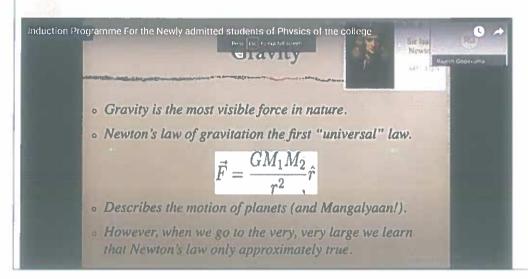
- a) To aware about the importance and prospect of studying Physics at college level.
- b) To implement the knowledge in teaching and research.

Outcome

- a) Improved knowledge about the importance the importance and prospect of studying Physics at college level.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 7

He discussed technological infrastructure and importance of trained personnel in scientific advances and discoveries.



2 nd October, 2020	Online FDP of Computer Science of the college organised by Department of Computer Science, Ramakrishna Mission Vivekananda Centenary College, Rahara	Professor Amlan Chakrabarti, Professor and Director, A.K.Choudhury School of Information Technology, University of Calcutta
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- a) To aware about the importance and prospect of studying Computer Science at college level.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the importance the importance and prospect of studying Computer Science at college level.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 5

He discussed the designing, development and analysis of software and hardware used to solve problems in a variety of business, scientific and social contexts.



14 th October,
2020

Online FDP of Botany of the college 2020 organised by Department of Botany, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Subhra Chakraborty, Director, National Institute of Plant Genome research, New Delhi

Objective of the seminar:

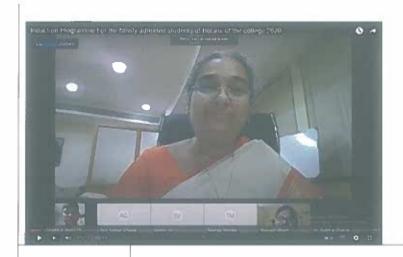
- a) To aware about the importance and prospect of studying Botany at college level.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the importance the importance and prospect of studying Botany at college level.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 9

He discussed the areas of economic productivity involved in the study of crops and ideal growing techniques that increase crop yield.



13th November, 2020

Online FDP of Mathematics students of the college 2020

Prof Rajeeva Laxman Karandikar, Director, Chennai Mathematical Institute, H1 Sipcot IT Park, Siruseri, Kelambakkam

Objective of the seminar:

- a) To aware about the importance and prospect of studying Mathematics at college level.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the importance the importance and prospect of studying Mathematics at college level.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6

He discussed the crucial role of mathematics in understanding the contents of other fields such as science, social studies and even art.



Online FDP of Zoology of the college

Dr. Subeer Majumdar. FNA, FNASc, FASc, Director, National Institute of Animal Biotechnology, Hyderabad

- a) To aware about the opportunities to consider ways to face global challenges such as climate change and food security, trying to find solutions to help both animals and humans.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 8

He discussed the opportunities to consider ways to face global challenges such as climate change and food security, trying to find solutions to help both animals and humans.



23rd November, 2020 Induction program For the Newly admitted

Online FDP in botany of the college 2020

Professor S.K. Barik, Director, CSIR-National Botanical Research Institute, Rana Pratap Marg

Objective of the seminar:

- a) To aware about the application of plant sciences in agriculture, horticulture, health care and genetic engineering.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 9

He discussed the varied application of plant sciences in agriculture, horticulture, health care and genetic engineering.



28th November, 2020

Online FDP of Microbiology of the college organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Prof. Ramkrishna Sen,
Professor & Head, Department
of Biotechnology, Indian
Institute of Technology (IIT),
Kharagpur.

Objective of the seminar:

- a) To aware about the prospect of microbiology in different aspects like food production, biodegradation, manufacture of commercial goods and genetic engineering.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6

He discussed the aspects of microbiology in different aspects like food production, biodegradation, manufacture of commercial goods and genetic engineering.

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5th December, 2020

Online FDP on 'Understanding the social language of bacteria: Speak or not to speak?' organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Subhadeep Chatterjee, Scientist, Centre for DNA Fingerprinting & Diagnostics, Hyderabad-500039, Telengana (Bhatnagar Awardee-2020)

Objective of the seminar:

- a) To aware about the quorum sensing and cell signaling pathways in bacterial cellular system.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6

He discussed about the quorum sensing and cell signalling pathways in bacterial cellular system.



6th December, 2020

Online FDP on Covid-19: history, awareness and therapeutic organised by Department of Botany, Ramakrishna Mission Vivekananda Centenary College, Rahara **Dr. Malabendu Jana**, Assistant Professor, Rush University Medical Center Neurological Science, Chicago, IL-60612, USA

Topic- Covid-19: Possible strategies to prevent neurodegenerative diseases

Prof. Projit Kumar Palit,
Professor, Department of
History, Jadunath Sarkar School
of Social Sciences, Assam
University, Silchar
Topic- Pandemic time and
Educational Institutions:
looking to Positivity

Objective of the seminar:

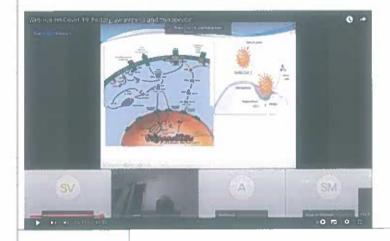
- a) To aware about the Covid-19: history, awareness and therapeutic.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 24

He discussed about the corona virus pandemic effectively, its therapeutic prevention and awareness of society in the coming times.



8th December, 2020

Online FDP ar on 'Awesome geographical sweep of a mutant coronavirus, with some hesitations.' organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Prof. Partha P Majumder, Former Director, NIBMG, Kalyani and President, Indian Academy of Sciences.

Objective of the seminar:

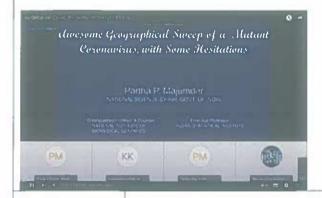
- a) To gather knowledge about the mutations of the SARS-CoV-2 spike protein, focusing on their impacts on antigenicity and contextualizing the in the protein structure.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants students, teachers and scholars: 16

He discussed about the mutations of the SARS-CoV-2 spike protein, focussing on their impacts on antigenicity and contextualizing the in the protein structure.



11th December, 2020

Online FDP on "Bacterial warfare mediated by Type VI Secretion system" organised by Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Biswanath Jana,
Department of Clinical
Microbiology and Immunology,
Sackler Faculty of Medicine,
Tel Aviv University, Tel Aviv,
Israel.

Objective of the seminar:

- a) To gather knowledge about the Bacterial warfare mediated by Type VI Secretion system.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 10

He discussed the roles of bacterial Type VI Secretion system in the establishment and perturbation of bacterial commensalism.



20 th February, 2021	Online FDP on 'Scientific Beekeeping for Managed Pollination and Production of Quality Honey and other Hive Products" organised by Department of Zoology,
	Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Dipak Nayak, Sr. Scientist & In-Charge, ICAR-Central Institute for Subtropical Horticulture, Regional Research Station, Malda,

Objective of the seminar:

- a) To gather knowledge about the Scientific Beekeeping for Managed Pollination and Production of Quality Honey and other Hive Products.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6

He discussed the excellent role of bee-keeping in pollination biology and production of various nutritionally valuable food products like honey.

31 st March, 2021	Online FDP on Tackling the Flu: From H1N1 to SARS-CoV-2 organised by Department of Mirobiology, Ramakrishna Mission Vivekananda Centenary College, Rahara	Dr. Arindam Mondal, Assistant Professor, IIT Kharagpur
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Objective of the seminar:

- a) To gather knowledge about the the characteristics of SARS-CoV-2 virus, its genomics, transmission process and preventive measures for the casual disease.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 11

He discussed the characteristics of SARS-CoV-2 virus, its genomics, transmission process and preventive measures for the casual disease

8th May, 2021	Online FDP on 'Amino Acids and Trisubstituted Methanes (TRSMs) as Versatile Synthon: Rays of Hope for Autophagic Cell Death and Tuberculosis respectively? organised by Department of Chemistry, Ramakrishna Mission Vivekananda Centenary College, Rahara	Dr. Gautam Panda Scientist F, Senior Principal Scientist & Professor CSIR-CDRI (Central Drug Resistant Research Institute), Lucknow		
Objective of the seminar: a) To gather knowledge about the importance and application of Amino Acids and Trisubstituted Methanes (TRSMs) as Versatile Synthon. b) To implement the knowledge in teaching and research. Outcome: a) Improved knowledge about the topic. b) Got idea to implement the knowledge in teaching and research.				
Participants tead	chers: 15			
9th May, 2021	Online FDP on 'How to write a review: through computational approach' organised by Department of Zoology, Ramakrishna Mission Vivekananda Centenary College, Rahara	Dr. Ajoy Mallick, Assistant Professor, Department of Zoology, Ramakrishna Mission Vivekananda Centenary College, Rahara		
b) To implement t Outcome: a) Improved know	reminar: reledge about the scientific literature review through the knowledge in research. reledge about the literature review. reledge the knowledge in teaching and research.	igh computational approach.		
Participants tead He discussed abo	chers: 21 out how a scientific review article is published	in a journal		
		Dr. Rajan Sankaranarayanan,		

Online FDP on Chiral checkpoints

during protein biosynthesis

12th May,

2021

Principal
Ramakrishna Mission
Vivekananda Centenary Callege
Rahara, Kolkara-700 118

FNASc, FNA, Chief Scientist,

Structural Biology Laboratory

CSIR-Centre for Cellular and Molecular Biology (CCMB),

- a) To gather knowledge about the Chiral checkpoints during protein biosynthesis.
- b) To implement the knowledge in research.

Outcome:

- a) Improved knowledge about the literature review.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 14

He discussed about the most obvious impact of chirality that is seen in the shape of molecules and the laevorotatory amino acids that always give rise to right-handed helical proteins.

5th June, 2021

Online FDP on "Broken Chain of Events: connecting predation risk to prey population abundance" organised by Department of Zoology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Maria Thacker, Associate Professor, Macrophysiology Lab, Centre for Ecological Sciences, IISc Bangalore,

Objective of the seminar:

- a) To gather knowledge about the predation risk to prey population abundance.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 6

He discussed that as the prey population increases, there is more food for predators. So, after a slight lag, the predator population increases as well. As the number of predators increases, more prey are captured. As a result, the prey population starts to decrease.

6th June, 2021

Online FDP on **Biostatistics & Bioinformatics** organised by Department of Mirobiology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Dr. Sekhar Pal, Assistant Professor, Department of Microbiology, Ramakrishna Mission Vivekananda Centenary College, Rahara

Objective of the seminar:

- a) To gather knowledge about the Biostatistics & Bioinformatics.
- b) To implement the knowledge in teaching and research.

Outcome:

- a) Improved knowledge about the topic.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 8

He discussed about the science of designing, conducting, analysing and interpreting studies aimed at improving public health and medicine.

24th June, 2021	Online FDP on Yoga for all	Prof B. R. Ramakrishna,
		Vice Chancellor, Swami
		Vivekananda Yoga
		Anusandhana Samsthana
		• Prof. Y. Narahari, Dean of
		Division EECS, IISC,
		Bangalore
		• Dr.
		SreekrishnanVenkiteswaran
		, CTO, GTS cloud unit, IBM

- a) To gather knowledge about the important of Yoga in lifestyle management.
- b) To convey the knowledge to students.

Outcome:

- a) Improved knowledge about the Yoga.
- b) Got idea to implement the knowledge in teaching and research.

Participants teachers: 21

They discussed about the impotence of Yoga. They said about different postures of Yoga. They also elaborated different types of Yoga. They also discussed about Yama (Positive Rules of meditations), Niyama (Prohibitory Rules of meditations), Asanas (Physical postures and movements) Pranayama (Breathing techniques), Pratyahara (Controlling the mind), Dharana (Gazing inward), Dhyana (Meditation with object), Samadhi (Meditation without object)



Administrative Training Programmes:

Date	Title of the Programme	Speaker Details
25.07.2020	Training on HRMS portal for staff salary	Sri Sushant Boral

- a) To aware different feature of the package and its use
- b) To implement the it in daily office works

Outcome:

- a) Aware about the possibility of this package
- b) Implement it in daily office works and data management

Participants office staff: 2

-	Training on HRMS
29.09.2020	portal for Treasury
	transaction

Sri Sushant Boral

Objective of the seminar:

- a) To aware different feature of the package and its use
- b) To implement the it in daily maintenance of the office and library

Outcome:

- a) Aware about the possibility of this package
- b) Implement it in daily office works and data management

Participants office staff: 2

	Training on HRMS
03.10.2020	portal for Staff
	management

Sri Soumen Ghosh

Objective of the seminar:

- a) To aware different feature of the package and its use
- b) To implement the it in College website management

Outcome:

- a) Aware about the possibility of this package
- b) Implement it in daily management of college website

Participants office staff: 1