



**RAMAKRISHNA MISSION VIVEKANANDA EDUCATIONAL AND RESEARCH
INSTITUTE**

[FORMERLY KNOWN AS RAMAKRISHNA MISSION VIVEKANANDA UNIVERSITY]

**(Declared by Govt. of India as Deemed University under Section 3 of UGC Act,
1956)**

PO Belur Math, Dist Howrah 711202, West Bengal

Brief Profile and Report of Activities for the year 2020-21

HISTORIC BACKDROP: SWAMI VIVEKANANDA'S VISION AND OBJECTIVES



Ramakrishna Mission Vivekananda University, formerly known as 'Ramakrishna Mission Vivekananda Educational and Research Institute' is a humble first step in actualizing Swami Vivekananda's vision of a University at Belur Math, the headquarters of Ramakrishna Math and Ramakrishna Mission that he founded at the behest of his Master, Sri Ramakrishna Paramahansa. In fact, on 2 July 1902, just a couple of days before he passed away, Swami Vivekananda prophesied that "the spiritual impact that has come to Belur [Math] will last fifteen hundred years; and it will be a great university. Do not think I imagine it; I *see* it." On another occasion, he wrote: "Now, the aim is to gradually develop this [Belur] Math into an all round university." As a humble step in actualizing this vision, Ramakrishna Mission started a University in 2005 under the name 'Ramakrishna Mission Vivekananda Educational and Research Institute'. It is also known as 'Ramakrishna Mission Vivekananda University', as subsequently renamed. In its effort to actualize Swami Vivekananda's vision of imparting 'man-making' and character-building education, the University has set its objectives as achieving excellence in the field of higher education on the one hand and on the other to create a band of educated youth who would, in Swami Vivekananda's words, possess 'muscles of iron and nerves of steel and a mind made of the same material of which the thunderbolt is made'—in short the objective is the creation of 'complete human beings' with 'head, hand and heart' fully developed: 'heart to feel, brains to conceive, and hands to work', men and women of impeccable character, inflexible moral fibre, penetrating intellects, lion-like courage and above

all, intense feeling for the underprivileged and the downtrodden masses of India, those who would passionately feel and work for rebuilding a glorious India of the future—powerful, vigorous and rejuvenated.

VISION AND MISSION

Vision:

To be a great centre of learning blending the twin excellences of ancient Indian wisdom and modern scientific knowledge and technological skill, imparting life-building, character-making education.

Mission:

- ✓ **Pursuit of Excellence** - To strive for excellence in teaching, research and all academic endeavors.
- ✓ **Blending of Eastern and Western values** - To inculcate ancient Indian values like Shraddha (unshakable conviction), purity, truth, selflessness, harmony and peace, blending them with predominantly western values like scientific temper, rational outlook, technological efficiency, teamwork, professional integrity, work ethics, etc., in order to create a band of educated youth with lofty character and integrated personalities with harmonious development of heart, head and hand—faculties of feeling, thinking and willing—bhakti, jnana and karma with yoga or concentration interpenetrating all these.
- ✓ **Social responsibility** - To train and educate the youth to become socially responsible citizens to collectively rebuild a rejuvenated, glorious India by first of all building an impeccable, lofty character at the individual level.

OBJECTIVES, UNIQUENESS AND SALIENT FEATURES—THE ‘THRUST AREAS’:

The uniqueness of the University consists in its following salient features:

- (i) the emphasis on certain ‘thrust areas’ which are also ‘gap areas’ in that these areas scarcely receive any attention in the conventional universities in India,
- (ii) the multi-campus character of the University—it operates through a wide network of specialized Faculty Centres in these thrust areas located in different parts of India at the various branch-centres of Ramakrishna Mission some of which have been working in these areas for decades,
- (iii) the inculcation of higher human values in our attempt to realize Swami Vivekananda’s vision of education as ‘life-building, man-making character-making assimilation of ideas’—value-based education forms the essential component of *all* the courses run by the University.

The following are the 'thrust areas' of the University:

- (1) Disability Management and Special Education
- (2) Integrated Rural Development including Tribal Development
- (3) Indian Cultural and Spiritual Heritage and Value Education
- (4) Fundamental sciences—integrated teaching and research
- (5) Environmental Science and Disaster Management including relief and rehabilitation

Courses and academic programmes in the above areas are conducted at the University's Belur main campus (the Headquarters) and the following approved 'Off-campus' centres through the various Schools as mentioned below:

- (1) School of Rehabilitation Sciences and Physical Education at Coimbatore, Tamil Nadu.
- (2) School of Agriculture and Rural Development at Narendrapur, West Bengal, and Ranchi, Jharkhand.
- (3) School of Indian Heritage at Belur main campus and Swami Vivekananda's Ancestral House, Kolkata, West Bengal.
- (4) School of Mathematical Sciences at Belur main campus and Swami Vivekananda's Ancestral House, Kolkata, West Bengal.
- (5) School of Humanities and Social Sciences at Belur main campus and Swami Vivekananda's Ancestral House, Kolkata, West Bengal.

ACCREDITATION BY NAAC

In the results released on 28 March 2019 in NAAC website, the Deemed-to-be-University, 'Ramakrishna Mission Vivekananda Educational and Research Institute' headquartered in Belur Math, with 'Off-Campus' Centres in Coimbatore (Tamil Nadu), Ranchi (Jharkhand) and Narendrapur (West Bengal), has been awarded the **highest Grade of A++ with CGPA of 3.66.**

The A++ accreditation will be valid for five years up to 28 March 2024.

THE BOARD OF MANAGEMENT OF RKMVERI:

1. Swami Atmapriyananda, Vice Chancellor (Chairperson)
2. Swami Bodhasarananda, Assistant General Secretary, Ramakrishna Mission
3. Swami Sarvottamananda, Pro-Vice Chancellor
4. Swami Kirtipradananda, Registrar (ex-officio Secretary of the Board of Management)
5. Sri Sunil Kumar Barnwal, IAS, Principal Secretary to the Chief Minister of Jharkhand
6. Sri M. Saravanan, IAS, PS to the MoS, Dr Jitendra Singh, Govt. of India, New Delhi
7. Dr. A. Santhosh Mathew, IAS (Retd), former Chairperson of National Council of Teacher Education (NCTE), former Jt. Secretary, Ministry of Rural Development, Govt. of India
8. Dr. Sunaina Singh, Vice Chancellor, Nalanda University, Rajgir, Bihar
9. Dr. Ishwar Acharya, Director, Central Council of Research in Yoga and Naturopathy, Ministry of AYUSH, Government of India, New Delhi
10. Dr. Bimal Roy, former Director, Indian Statistical Institute (ISI) and presently Head, RC Bose Centre for Cryptology and Security, ISI, Kolkata
11. Prof. Sukumar Adhikari, Senior Professor and Head, Dept of Maths, RKMVERI
12. Dr. N. Muthiah, Dean of Faculty of Disability Management and Special Education (FDMSE), Coimbatore Campus
13. Prof. Tapash Dasgupta, Dean of Faculty of Integrated Rural Development and Management (FIRDM), Narendrapur Campus
14. Dr. Abhijit Bandyopadhyay, Associate Professor, Dept of Physics, RKMVERI
15. Dr. Avijit Dutta, Assistant Professor, Faculty of Integrated Rural and Tribal Development and Management (IRTDM), Ranchi (Morabadi)
16. Swami Kaleshananda, Controller of Examinations, Main Campus of RKMVERI, Belur (Permanent Invitee)

ACADEMIC REPORTS OF THE DEPARTMENTS

DEPARTMENT OF SANSKRIT AND PHILOSOPHY

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Dr. Rakesh Das	Assistant Professor
2	Dr. Venkataramana Bhat	Assistant Professor
3	Dr. Gopikrishnan Reghu	Assistant Professor
4	Dr. Nagaraj Bhat	Assistant Professor
5	Dr. Neeraj Kumar Bhargave	Assistant Professor
6	Dr. Shantanu Ayachit	Assistant Professor
7	Swami Japasiddhananda	Assistant Professor
8	Swami Vedarthananda	Assistant Professor
9	Swami Medhananda	Assistant Professor

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M.A. (Integrated) in Sanskrit	21
2	M.Phil – Ph. D. (Integrated) in Sanskrit	10

STUDENTS PASSED OUT DETAILS OF THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M.A. (Integrated) in Sanskrit	12
2	M.Phil-Ph.D (Integrated) in Sanskrit	4

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

DETAILS OF STUDENTS PURSUING HIGHER EDUCATION:

All the students who passed out in July 2020 are pursuing higher education.

<i>S. No.</i>	<i>Name of the student</i>	<i>Institution joined and course persuing</i>
1	Amit Kumar Sahoo	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
2	Buddhadev Das	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
3	Chandan Mukherjee	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
4	Rajesh Adhikari	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit

5	Rajkumar Mondal	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
6	Shanti Ghosh	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
7	Sanjay Bag	National Sanskrit University, Tirupati, M.Phil
8	Subhankar Burman	National Sanskrit University, Tirupati, M.Phil
9	Subhankar Das	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
10	Subhankar Das	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
11	Tuhin Mandal	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit
12	Uttam Ghosh	RKMVERI, M.Phil-Ph.D (Integrated) in Sanskrit

DETAILS OF STUDENTS PLACED

<i>S. No.</i>	<i>Name of the student</i>	<i>Organisation / Company where placed</i>
1	Joydeb Dinda	Lakshmi Devi Shroff Adarsh Sanskrit College, Harisharnam Kutir, Kalirakha, Dist-B. Deoghar, Jharkhand – 814112

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

<i>S. No.</i>	<i>Name of current Ph. D. scholars</i>	<i>Name of Supervisor</i>
1	Sibsankar Karan	Dr. Gopikrishnan Reghu
2	Sumanta Choudhury	Dr. Gopikrishnan Reghu
3	Amit Kumar Dey	Dr. Venkataramana Bhat
4	Joydeb Dinda	Dr. Rakesh Das
5	Nityananda Manna	Dr. Rakesh Das
6	Srimanta Bhadra	Dr. Rakesh Das
7	Sudip Mondal	Dr. Rakesh Das
8	Sujit Paramanik	Dr. Venkataramana Bhat
9	Bishnu Pada Pal	Dr. Neeraj Kumar Bhargave
10	Kartik Mete	Dr. Nagaraja Bhargave
11	Sanatan Das	Dr. Venkataramana Bhat
12	Sujit Maiti	Dr. Rakesh Das
13	Sukanta Manna	Dr. Gopikrishnan Reghu
14	Tridib Roy Mondal	Dr. Venkataramana Bhat

15	Krishna Gopal Patra	Dr. Rakesh Das
16	Saibal Acharya	Dr. Nagaraja Bhat
17	Soumitra Acharya	Dr. Neeraj Kumar Bhargave
18	Arupam Sanyal	Dr. Shantanu Ayachit
19	Palash Ghorai	Swami Medhananda
20	Pankaj Raul	Dr. Gopikrishnan Reghu
21	Sukhdev Shau	Dr. Neeraj Kumar Bhargave
22	Arpan Bhattacharya	Dr. Rakesh Das
23	Biplab Mallick"	Dr. Rakesh Das
24	Rahul Maity	Dr. Neeraj Kumar Bhargave
25	Santanu Nayek	Dr. Sukhdev Bhatt
26	Sankha Subhra Gachchhit	Dr. Neeraj Kumar Bhargave
27	Shubhadip Pal	Dr. Shantanu Ayachit
28	Amit Kumar Sahoo	Dr. Sukhdev Bhatt
29	Buddhadev Das	Swami Vedarthananda
30	Chandan Mukherjee	Dr. Nagaraja Bhat
31	Rajesh Adhikari	Dr. Nagaraja Bhat
32	Rajkumar Mondal	Dr. Gopikrishnan Reghu
33	Shanti Ghosh	Dr. Venkataramana Bhat
34	Subhankar Das 1	Dr. Shantanu Ayachit
35	Subhankar Das 2	Dr. Sukhdev Bhatt
36	Tuhin Mandal	Dr. Rakesh Das
37	Uttam Ghosh	Dr. Gopikrishnan Reghu

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

Details of papers presented in conferences, seminars, etc.

Dr. Gopikrishnan Reghu

1. Paper titled "*Proverbs and Idiomatic Expressions in Sanskrit*" National webinar on Sarasasamskritam saranirbharam by Livesanskrit, Kerala on 20 August 2020

Swami Japasiddhananda

1. Paper in Sanskrit titled “*Darśanaśāstreṣu Śāntiyupāyaḥ*” One Day International Webinar on “Relevance of Sanskrit Literature and Philosophy in the Modern Age” organised by Department of Sanskrit in collaboration with IQAC, Vivekananda Mission Mahavidyalaya, Purba Medinipur, West Bengal, on 19 July 2020
2. Paper in English titled “*Vedic Ideals of Education*” One Day National Webinar on “Relevance of Vedic Ideals of Education in Modern Times” organised by Departments of Philosophy, Sanskrit, and Education at Raja Narendra Lal Khan Women’s College, Paschim Medinipur, West Bengal on 06 August 2020
3. Paper in English titled “*Vivekacūḍāmaṇi – A Meditation Manual*” in the Seven days online National Level Workshop on “Vivekchudamani - Greatest text of Indian Philosophy” organised by ICPR (Indian Council of Philosophical Research) Academic Centre, Lucknow, from 03-09 September 2021

Details of publications in journals and books by the faculty

Swami Japasiddhananda

1. Paper titled “*Peace Package for Pilgrims*” published in *Thai Prajñā*, the annual international research journal of the Silpakorn University, Bangkok, Thailand. ISSN: 1686- 9354 2021
2. Paper in Sanskrit titled “*Śāntipāṭhaḥ*” published in *Aranyakam*, a biannual, peer reviewed research journal of the “Sanskrit Prasara Parishad”, Ara, Bihar. ISSN: 9750061 Mar, 2021
3. Paper in Sanskrit titled “*Sthānivatsūtram Kīṛk śāstram*” published in *Suraj Punj Journal for Multidisciplinary Research*, Volume-11, Issue-2, Page No: 96-102, e-ISSN: 2394-2886 Ugc Approved Journal S.No: 64786 <https://drive.google.com/file/d/1-NVHPpIIViesO2LBRYGqrDmbQE3zNUPb/view> Feb, 2021
4. Poem in Sanskrit titled “*Prabuddhāṣṭakam*” (on the Journal Prabuddhabhārata), published by *Prabuddha Bharata*, (an English monthly), Vol. 126, Issue 1, 125th year Commemorative Volume, Advaita Ashrama, PO Mayavati, Dist. Champawat, Uttarakhand ISSN 0032-6178, Jan, 2021
5. Paper in Sanskrit titled “*Darśanasthāne Sthānivatsūtram*” published in the online *International Journal of Sanskrit Research*, 2020, Vol. 6, Issue 6, Part A [ISSN Number: 2394 - 7519] [Impact Factor (RJIF): 5.12] <https://www.anantaajournal.com/archives/?year=2020&vol=6&issue=6&part=A> 2020
6. Paper in Sanskrit titled “*Sthānivatsūtrārtha-vimarsaḥ*” published in *Karnataka Samskritadhyayanam*, a biannual Sanskrit pee-reviewed research journal

published by the Karnataka Sanskrit University, Bengaluru, ISSN – 2249-1104, 2020

7. Poem in Sanskrit titled “*Śāntiṣoḍaśī*” published in *Sanskrita Pratibha*, a quarterly journal of the Sahitya Akademi, New Delhi. Vol. 76, Edition: July-September 2020

Details of publications in journals and books by scholars

Sri Sujit Maity, PhD (B16906) –

1. Topic - 'शाब्दिकनिकाये शाब्दिकस्य अन्नम्भट्टस्य अवदानम्', published in 'Prācī Prajñā', The Peer Reviewed E-Journal in Sanskrit, VOL-XI/2020, ISSN: 2348-8417, December 2020
2. Topic - 'मिताक्षराया गतार्थत्वमगतार्थत्वम् वेति विचारविमर्शः', published in Śabdārṇavaḥ, An International Peer Reviewed Refereed Research Journal, ISSN: 2395-5104, July, 2020

Sri Sankha Subhra Gachchhit, MPhil (B1950004) -

1. Research article entitled “व्याकरणशास्त्रस्य प्रयोजनानि” has published in “Vedanjali” journal Volume 12 ISSN-2349-364X, JULY- DECEMBER 2019.
2. Research article entitled “शाब्दिकनये लक्षणावृत्तिविमर्शः” was published in “Shabdarnav” Volume 11, ISSN-2395-5104, January-June 2020.

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

Dr. Neeraj Kumar Bharagave

1. UGC sponsored Refresher’s Course organised at Himachal Pradesh University, from 14 to 26 September 2020

Swami Japasiddhananda

1. Webinar on “Research Metrics and Ranking through the Lens on Scopus” organised by Elsevier in collaboration with Indian Statistical Institute, Kolkata (14 Jan 2021)
2. An Online Certificate Course in “Introduction to Indian Heritage” organised by Bhandarkar Oriental Research Institute, Pune and Heritage India Communications Pvt. Ltd, Pune (24 days) from 8 June to 2 July 2020
3. National Online Faculty Development Programme on E-Content Design, Development and Delivery organised by Kavikulaguru Kalidas Sanskrit University, Ramtek In association with INFLIBNET CENTRE (Gandhinagar) (10 days) from 18 June to 27 June 2020

Sri Sankha Subhra Gachchhit, MPhil (B1950004) -

1. Participated in online course entitled **Sources of Indian Heritage** organized by Bhandarkar Oriental Research Institute, Pune in collaboration with Heritage India Communications Private Limited from 13th July-15th August 2020.
2. Participated in **One Week Online Faculty Development Program on Excellence in Creative Teaching and Research** organized by Internal Quality Assurance Cell, Karnataka Sanskrit University, Bengaluru in collaboration with Karnataka Sanskrit Collegugala Bodhaka Mattu Bodhaketara Sangha from 12th-17th October 2020.
3. Attended the **online lecture series on Manuscript and Textual Criticism** organized by Bhogilal Leherchand Institute of Indology, Delhi from 21st November- 28th December 2020.

DEPARTMENT OF PHYSICS

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Abhijit Bandyopadhyay	Associate Professor
2	Shamik Gupta	Associate Professor
3	Amitava Bhattacharyya	Assistant Professor
4	Bobby Ezhuthachan	Assistant Professor
5	Sanjoy Biswas	Assistant Professor
6	Br. Aditya	Assistant Professor
7	Br. Atreya	Assistant Professor

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

S. No.	Programme	No. of Students
1	M. Sc.	35
2	Ph. D.	3

STUDENTS PASSED OUT DETAILS OF THE YEAR

S. No.	Programme	No. of Students
1	M. Sc. Physics	19
2	Ph. D. in Physics	3

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

Number of students qualified Joint Entrance Screening Test (JEST) for entrance to Ph. D. programme -- 10

S. No.	Name	Rank
1.	Surajit Chakraborty	(39)
2.	Debjyoti Paul	(118)
3.	Mrinal Manna	(118)
4.	Kamales Beta	(191)
5.	Sanat Kumar Adhikari	(215)
6.	Debu Das	(241)
7.	Debarun Paul	(361)
8.	Anjan Pal	(437)

9. Dipendu Sarkar (521)

10. Sanat Kumar Adhikari (225)

Number of students qualified UGC/CSIR National Eligibility Test with Junior Research Fellowship (NET-JRF) -- 7

S. No.	Name	Rank
1.	Surajit Chakraborty	(13)
2.	Arubabha Patra	(37)
3.	Denjyoti Paul	(141)
4.	Dipak Maity	(221)
5.	Debargha Sarkar	
6.	Dipendu Sarkar	(200)
7.	Souparna Dhar	(87)

Number of students qualified GATE -- 14

S. No.	Name	Rank
1.	Surajit Chakraborty	(40)
2.	Debjyoti Paul	(40)
3.	Kamales Bera	(107)
4.	Dipendu Sarkar	(439)
5.	Dipak Maity	(491)
6.	Debarun Paul	(619)
7.	Sanat Kumar Adhikari	(665)
8.	Mrinal Manna	
9.	Debu Das	
10.	Debargha Sarkar	(104)
11.	Deepayan Samanta	(401)
12.	Madhurita Das	(607)
13.	Sanat Kumar Adhikari	(665)
14.	Souparna Dhar	(804)

Number of students selected for Ph. D. in Research Institutes across India -- 9

S. No.	Name	Institution
1.	Surajit Chakraborty	TIFR, Hyderabad
2.	Dipak Maity	TIFR, Hyderabad
3.	Arunava Patra	IIT Kanpur
4.	Debjyoti Paul	TIFR, Mumbai
5.	Debu Das	IISER, Thiruvananthapuram
6.	Debarun Paul	Indian Statistical Institute, Kolkata
7.	Subham Pal	Indian Statistical Institute, Kolkata
8.	Anjan Pal	Raja Ramanna Centre for Advanced Technology, Bangaluru
9.	Sanat Kumar Adhikari	UGC DAE CSR Kolkata centre

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

Placements of Students of the Department, awarded PhD in 2020:

1. Debraj Das is joining as a post-doctoral fellow at University of Bristol, UK.
2. Anirban Chatterjee has joined as a post-doctoral fellow at Department of Physics, Indian Institute of Technology, Kanpur.
3. Suchetan Das has joined as a post-doctoral fellow at Department of Physics, Indian Institute of Technology, Kanpur.

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

Name of the Scholar	Name of the Supervisor	Area of Research
Kartik Panda (experiment)	Prof. Amitava Bhattacharyya	Materials science
Somnath Porey	Prof. Bobby Ezhuthachan	High Energy Physics
Baishali Roy	Prof. Bobby Ezhuthachan	High Energy Physics
Shivam Verma	Prof. Sanjoy Biswas	Particle Physics
Arnab Kanti Jana (experiment)	Prof. Amitava Bhattacharyya	Materials science
Shri Biswajit Jana	Prof. Abhijit Bandyopadhyay	Cosmology
Kumar Raviranjana	Prof. Pankaj Joshi	General Relativity
Samvit Mahapatra	Prof. Shamik Gupta	Statistical Physics

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

- (1) G. Tucci, A. Gambassi, S. Gupta and É. Roldán, - Controlling particle currents with evaporation and resetting, Phys. Rev. Research 2, 043138 (2020)
- (2) M. Sarkar and S. Gupta, The Kuramoto model with additional nearest-neighbor interactions: Existence of a nonequilibrium tricritical point, Phys. Rev. E 102, 032202 (2020),
- (3) V. K. Chandrasekar, M. Manoranjani and S. Gupta, The Kuramoto model in presence of additional interactions that break rotational symmetry, Phys. Rev. E 102, 012206 (2020),
- (4) D. Métivier, L. Wetzell and S. Gupta, Onset of synchronization in networks of second-order Kuramoto oscillators with delayed coupling: Exact results and application to phase-locked loops, Phys. Rev. Research 2, 023183 (2020)
- (5) Abhijit Bandyopadhyay, Anirban Chatterjee - Time-dependent diffusive interactions between dark matter and dark energy in the context of k-essence cosmology, Research in Astronomy and Astrophysics 2021 Vol.21 No.1, 2 (10pp)
- (6) Abhijit Bandyopadhyay, Anirban Chatterjee - Implications of JLA data for k-essence model of dark energy with given equation of state, Eur. Phys. J. Plus (2020) 135:181
- (7) Suchetan Das, Bobby Ezhuthachan, Somnath Porey, Baishali Roy - Virasoro algebra from modular Hamiltonians, arXiv:2101.10211

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

Shamik Gupta: Emerging Trends in Quantum Matter, Statistical and Biological Physics, Institute of Physics, Bhubaneswar in November, 2020

Shamik Gupta: Talk on Noise in Classical and Quantum Systems, Theoretical Physics Colloquium, Tata Institute of Fundamental Research, Mumbai, India, January 18, 2021

Shamik Gupta: Talk on Spontaneous Synchronization in Delay-coupled Nonlinear Dynamical Systems, Random Interactions Seminar, Tata Institute of Fundamental Research, Mumbai, India, January 20, 2021

Shamik Gupta: Talk on Random Walks: Classical vs. Quantum, Tankhiwale Lectures, Nagpur University, Nagpur, India, March 2 – 3, 2020

Bobby Ezhuthachan Attended the one day virtual conference "chaos and QFT" held on September 25th 2020, hosted by the Initiative for Theoretical Sciences, CUNY.

Amitava Bhattacharyya attended Q-MAT : 2020: 3RD ANNUAL CONFERENCE OF QUANTUM CONDENSED MATTER, S. N. Bose National Centre for Basic Sciences, JD Block,

Sector-III, Salt Lake City, Kolkata - 700 106, India

Sanjoy Biswas participated in the HEP-Cosmo Webinar: <https://sites.google.com/view/> and attended the following talks:

- (a) By Prof. Adam Falkowski - Soft theorems from on-shell amplitudes - 24 July 2020.
- (b) By Prof. Csaba Csaki - UV sensitivity of the axion mass from instantons in partially broken gauge groups - 21 August 2020.
- (c) Dr. Shankha Banerjee, - Constraining the Higgs-gauge couplings through differential SMEFT analyses - 28th August 2020
- (d) Prof. Marco Cirelli - Sub-GeV Dark Matter and X-rays - 11 September 2020

Sanjoy Biswas attended the International Webinar Series on Introduction to Cosmology and Recent Developments, Organized by Vellore Institute of Technology, 11 July, 2020.

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

Ongoing research projects:

- (1) Bobby Ezhuthachan is working on a project with Suchetan Das, Somnath Porey and Baishali Roy on finding Virasoro eigenmodes for the Modular Hamiltonian in 2D CFT's. Tentative title is "Virasoro Modular Blocks". This work is in the final stages of completion.
- (2) Bobby Ezhuthachan has started a project with a Swarnendu Sarkar (assistant prof at DU), Somnath Porey and Baishali Roy on computing entanglement measures (like entanglement entropy and mutual information) in scattering processes in QFT. This project started in September and is in the early stages.
- (3) Shamik Gupta has been working on Long-range interactions: Collaboration with Professor Alessandro Campa, Istituto Nazionale di Fisica Nucleare, Rome, Italy, and Dr. Anirban Bose, Serampore College, Serampore.
- (4) Shamik Gupta has been working on "Resetting" in collaboration with Dr. Rishu K Singh, IIT Bombay.
- (5) Shamik Gupta has been working on "Synchronization" in Collaboration with Professor Giovanna Morigi, Universität des Saarlandes, Saarbrücken, Germany, Professor P K Mohanty, Indian Institute of Science Education and Research Kolkata, Mohanpur, India, and Sayan Roy, Indian Institute of Science Education and Research Bhopal.
- (6) Amitava Bhattacharyya working in collaboration with DT Adroja, R Sogabe, Y Goto, Y Mizuguchi and AD Hillier A. Bhattacharyya, T. Das, D. T. Adroja, J. Zhao, and Y. Feng on Evidence for low-energy excitations in the quasi-1D Na₂Cr₃As₃ superconductor (ready for submission to Physical Review Letters)
- (7) Amitava Bhattacharyya, working in collaboration with D. T. Adroja, M. M. Koza, S.

Tsutsui, and T. Cichorek on Multigap superconductivity in the filled skutterudite compound LaRu₄As₁₂, (preparing for submission to Physical Review Letters)

(8) Amitava Bhattacharyya working in collaboration with T. K. Bhowmik, D. T. Adroja, P. K. Biswas, T. P. Sinha, D. D. Khalyavin, and A. M. Strydom, Evidence for the Quantum Spin-Liquid Ground State in Fragmented Haldane-like Spin Chains Li₃Cu₂SbO₆ (preparing for submission to Nature Communications)

(9) Amitava Bhattacharyya working in collaboration with D.T. Adroja, Z. Hossain, V. K. Anand and A.M. Strydom on Neutron scattering and μ SR investigations of a quaternary borocarbide PrRh₂B₂C

(10) Sanjoy Biswas is working on Axion-Like Particle mediated model of dark matter annihilation in collaboration with Anirban Chatterjee, Eung Jin Chun, and Shivam Verma.

(11) Sanjoy Biswas is working on Associated single-top and Higgs production at the LHC in the light of the Standard Model Effective Field Theory in collaboration with Subhaditya Bhattacharya, Kuntal Pal, and Jose Wudka.

(12) Abhijit Bandyopadhyay is working on Dynamical stability of dark energy models in cosmology in collaboration with Br. Biswajit and Anirban Chatterjee.

Ongoing Research grants in 2021:

(1) Shamik Gupta: TARE scheme of the Science and Engineering Research Board (SERB), Government of India; Project period: 2019 – 2022; Project title: Rare events in synchronizing systems; Sanction no is TAR/2018/000023

(2) Shamik Gupta: MATRICS scheme of the Science and Engineering Research Board (SERB), Government of India; Project period: 2020 – 2023;

(3) Shamik Gupta: Project title: Imprecision and Uncertainties in Quantum Measurements: A Theoretical Study using the Large Deviation Theory; Sanction no is MTR/2019/000560

(4) Shamik Gupta: Core Research Grant (CRG) scheme of the Science and Engineering Research Board (SERB), Government of India; Project period: 2020 – 2023; Project title: Collective dynamics of interacting nonlinear oscillators driven by coherent noise; Sanction no is CRG/2020/000596

(5) Amitava Bhattacharyya: Title: “Single crystal growth, understanding and optimizing strongly correlated electron based thermoelectric materials” funded by INSPIRE-DST, India.

Research proposals submitted:

Amitava Bhattacharyya has submitted the following two projects:

(1) Study of Unconventional Superconductivity in Non-Centrosymmetric Materials to

Department of Physics and Astronomy, Howard University, USA

(2) A State-of-the-Art 4 K Closed Cycle Refrigerator for Understanding and Optimizing Novel Emergent Properties of Quantum Materials to SERB-DST, India (under review)

DEPARTMENT OF COMPUTER SCIENCE

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Dr. Subir Ghosh	Professor
2	Sw. Sarvottamananda	Professor
3	Sw. Dhyaganamyanda	Associate Professor, HoD
4	Sw. Shastravidyananda	Assistant Professor
5	Br. Tamal	Assistant Professor
6	Br. Mrinmay	Assistant Professor
7	Dr. Sudipta Das	Assistant Professor
8	Dr. Joydeep Mukherjee	Assistant Professor

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. Computer Science	8
2	M. Sc. Big Data Analytics	15

STUDENTS PASSED OUT DETAILS OF THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. Computer Science	18
2	M. Sc. Big Data Analytics	10

DETAILS OF STUDENTS PURSUING HIGHER EDUCATION

<i>S. No.</i>	<i>Name of the student</i>	<i>Institution joined and course pursuing</i>
1	Shourya Dutta	Ph. D., King Abdullah Univ. of Science and Tech., Saudi Arabia
2	Srinjoy Roy	Ph. D., TCG Crest, Kolkata
3	Saptam Bakshi	Ph. D., TCG Crest, Kolkata
4	Seshadri Mukherjee	Ph. D., Indian Institute of Information and Technology, Hyderabad

5	Suryendu Dalal	Ph. D., Indian Institute of Information and Technology, Delhi
6	Aditya Sankar Pal	Ph. D., Indian Statistical Institute, Kolkata
7	Sourab Kundu	B. Ed.

DETAILS OF STUDENTS PLACED:

<i>S. No.</i>	<i>Name of the student</i>	<i>Organisation / Company where placed</i>
1	Arijit Poria	Tata Consultancy Services Pvt. Ltd.
2	Arnav Sharma	Tata Consultancy Services Pvt. Ltd.
3	Rohit Dey	Tata Consultancy Services Pvt. Ltd.
4	Monalisa Nayak	Tata Consultancy Services Pvt. Ltd.
5	Madhukshara Sarkar	Tata Consultancy Services Pvt. Ltd.
6	Kuntal Adak	Tata Consultancy Services Pvt. Ltd.
7	Arpan Dalal	Tata Consultancy Services Pvt. Ltd.
8	Anubhav Sarkar	Express Analytics, Pune
9	Shreyan Banerjee	GlaxoSmithKilne (GSK)
10	Aruparna Maity	ZS Associates, Bangalore
11	Chandrakant Saha	Dr. Reddys Lab, Hyderabad
12	Satish Kumar Keshri	Dr. Reddys Lab, Hyderabad
13	Jeetu Kumar	LG Soft, Bangalore
14	Kanad Das	Eko Software, Noida
15	Suman Manna	Arachnomdesch Technologies, Noida

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

Details of papers presented in conferences, seminars, etc.

1. **S. Das**, A. Dewanji and S. Kundu, "Software Reliability based on Renewal Process Modelling for Error Occurrence due to Each Fault with Periodic Debugging Schedule." Probability in the Engineering and Informational Sciences: 1-18.
2. Approximating \mathbb{R}^k -orthogonal Line Center, Barunabha Chakraborty, Arun Kumar Das, Sandip Das, Joydeep Mukherjee COCOA 2020.
3. [Aritra Banik](#), [Arun Kumar Das](#), [Sandip Das](#), [Anil Maheshwari](#), Swami Sarvottamananda: Optimal Strategies in Single Round Voronoi Game on Convex Polygons with Constraints [COCO A 2020](#): 515-529

4. [Sandip Das](#), [Subhadeep Ranjan Dev](#), Swami Sarvottamananda: A Worst-Case Optimal Algorithm to Compute the Minkowski Sum of Convex Polytopes.[CALDAM2021](#):179-195
5. **Joydeep Mukherjee, Alexandru Baluta, Marin Litoiu, Diwakar Krishnamurthy: RAD: Detecting Performance Anomalies in Cloud-based Web Services.**[CLOUD2020](#):493-501
6. Yar Rouf, Joydeep Mukherjee, Marin Litoiu, Joe Wigglesworth, Radu Mateescu: A Framework for Developing DevOps Operation Automation in Clouds using Components-off-the-Shelf.[ICPE2021](#):265-276
7. Arun Kumar Das, Sandip Das, Joydeep Mukherjee: Approximation Algorithms for Orthogonal Line Centers.[CALDAM2021](#):43-54
8. Dibyayan Chakraborty, Florent Foucaud, Harmender Gahlawat, Subir Kumar Ghosh, Bodhayan Roy: Hardness and Approximation for the Geodetic Set Problem in Some Graph Classes.[CALDAM2020](#):102-115

Details of publications in journals and books.

1. **Arun Kumar Das, Sandip Das, Joydeep Mukherjee: Largest triangle inside a terrain. Theor. Comp. Sci.**858:90-99(2021)
2. [Sandip Das](#), [Ayan Nandy](#), Swami Sarvottamananda: Optimizing movement in convex and non-convex path-networks to establish connectivity. [Discret. Appl. Math.](#)286:62-77(2020)
3. Sandip Das, Ayan Nandy, Swami Sarvottamananda: Linear time algorithms for Euclidean 1-center in \mathbb{R}^d with non-linear convex constraints.[Discret. Appl. Math.](#)280:71-85(2020)
4. **Joydeep Mukherjee, Diwakar Krishnamurthy: PRIMA: Subscriber-Driven Interference Mitigation for Cloud Services. IEEE Trans. Netw. Serv. Manag.**17(2):958-971(2020)

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES

/SYMPOSIUMS ATTENDED DURING THE YEAR

Sw. Dhyanyagamyanda attended IWOCA 2020 (online, free of charge) 31st International Workshop on Combinatorial Algorithms held during 8-10 June 2020

Dr. Sudipta Das attended Virtual FDP on Data Science with Python, April 2020.

DETAILS OF SPECIAL LECTURES / WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS HOSTED / ORGANISED DURING THE YEAR

- Dr. Prithwis Kumar De, Data Analytics & AI Industry Expert delivered an invited talk on 20 December 2020 to the students of MSc BDA on the theme 'Skillset needed for practicing Data Science' and engaging with the students in answering individual queries covering the following points such as, Areas in Corporate world, Mindset, Mental block, Open to work in many areas / in many roles Specialist vs generalist, Data cleansing, data management, data quality, data governance, Modeller, Algorithm developer, Model Maintenance, Lifelong learning, Domain / functional areas, Industry specialization, and Programming
- Department of Computer Science Conducted a national level Faculty Development Program during 1-5 February 2021 in the thrust area of Artificial Intelligence under the theme Machine Learning and Big Data. About 140 teachers across the nation registered online and 97 fully underwent the training program. This was sponsored by AICTE under the ATAL Scheme.

OTHER ACTIVITIES DURING THE YEAR

Professor. Raghunandan Sengupta of NPTEL fame from IIT Kanpur taught a 4-credit course (60 hours) on Econometrics and Finance to the students of MSc Big Data Analytics during September'20 to January'21

Mr. Pankaj Dhar, USA, a practicing professional taught a 2-credit course on Oracle Database Administration to the students of MSc Computer Science (2020-22) during February-June'21

Professor Anil Maheswari, Carleton University, Canada taught a 4-credit (60 hours) course on Algorithms for Data Science to the students of MSc Computer Science (2020-22) during February-June'21

All the above teachers rendered their services as labour of love.

MISCELLANEOUS INFORMATION

The students of MSc Big Data Analytics of 2019-21 batch underwent corporate internship at the following companies.

- Dr. Reddys Laboratories Pvt. Ltd, Hyderabad – 12 Students
- Tata Steel Pvt. Ltd, Jamshedpur – 2 Students
- Appolonious Pvt. Ltd., Kolkata – 3 Students

DEPARTMENT OF MATHEMATICS
LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Sukumar D. Adhikari	Professor
2	Stephan Baier	Professor
3	Sudeshna Basu	Associate Professor
4	Ashish Gupta	Associate Professor
5	Shameek Paul	Assistant Professor
6	Arindam Banerjee	Assistant Professor
7	Sagnik Chakraborty	Assistant Professor
8	Dripta Maharaj	Assistant Professor

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc.	24
2	Ph. D.	2

STUDENTS PASSED OUT DETAILS OF THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. Mathematics	10
2	Ph. D. in Mathematics	0

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

<i>S. No.</i>	<i>Name of the student</i>	<i>Institution joined and course pursuing</i>
1	Deblina Dey	Ph. D. program at IIT Chennai
2	Manas Jana	Qualified NET (Ph. D. offer)
3	Arghya Pratihar	Qualified NET (Ph. D. offer)

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

<i>S. No.</i>	<i>Name of the scholar</i>	<i>Name of the Supervisor</i>
1	Shruti Hegde	Prof. Sukumar D. Adhikari
2	Md Ibrahim Molla	Prof. Sukumar D. Adhikari
3	Dwaipayan Mazumder	Prof. Stephan Baier
4	Sourav Das	Prof. Stephan Baier
5	Arkaprava Bhandari	Prof. Stephan Baier
6	Anup Haldar	Prof. Stephan Baier

7	Esrafil Ali Molla	Prof. Stephan Baier
7	Sugata Mandal	Dr.Ashish Gupta
8	Snehashis Mukherjee	Dr.Ashish Gupta
9	Sanu Bera	Dr.Ashish Gupta
10	Soumendu Nandy	Dr.Ashish Gupta
11	Bikramjit Kundu	Dr. Arindam Banerjee
12	Kanoy Kumar Das	Dr. Arindam Banerjee
13	Sirajul Haque	Dr. Arindam Banerjee
14	Susmita Seal	Dr. Sudeshna Basu
16	Krishnendu Paul	Dr. Shameek Paul
17	Santunu Mondal	Dr. Shameek Paul
18	Rahul Sau	To be announced
19	Shyamal Datta	To be announced

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

Details of papers presented in conferences, seminars, etc.

1. Dr. Sagnik Chakraborty presented the article 'every here vanishing polynomial functions'

in IWCARSHSS 2020 held at Maharaja Bir Bikram University, Tripura during July 9-10, 2020.

Details of publications in journals and books

1. S. D. Adhikari, Md Ibrahim Molla, and S. Paul, 2020. Extremal sequences for some weighted zero-sum constants for cyclic groups, Combinatorial and Additive Number Theory IV, Springer Proc. Math. Stat. To appear

2. Dr. Sagnik Chakraborty Published one article in Journal of Algebra titled 'some results on retracts of polynomial rings, jointly with Nikhilesh Dasgupta, Amartya Kumar Dutta and Neena Gupta.

3. Baier, Stephan; Technau, Marc, On the distribution of αp modulo one in imaginary quadratic number fields with class number one. J. Théor. Nombres Bordx. 32, No. 3, 719-760 (2020).

4. Baier, Stephan; Bansal, Arpit, Large sieve with sparse sets of moduli for $\mathbb{Z}[i]$. Acta Arith. 196, No. 1, 17-34 (2020)

5. Baier, Stephan; Kumar Singh, Rajneesh, The large sieve inequality with square moduli for quadratic extensions of function fields. Int. J. Number Theory 16, No. 9, 1907-1922 (2020).

6. Stephan Baier and Dwaipayan Mazumder, "Diophantine Approximation with Prime Restriction in Real Quadratic Number Fields", *r, Mathematische Zeitschrift*, DOI: 7. Ali Alilooee and Arindam Banerjee, Packing properties of cubic square-free monomial ideals, *J. Algebraic Combinatorics*.

8. Arindam Banerjee, R. P. Goswami and M. Chatterjee, Network Theoretic analysis of JAK/STAT pathway and extrapolation to drugs and viruses including COVID19, *Scientific Reports (Nature Publication)*.

9. S.Basu , S. Som and L.K.Dey, Farthest Point Problem and Partial Statistical Continuity in Normed Linear Spaces' in *Quaestiones Mathematicae* February 2021.

Details of Submitted Articles

1. Ashish Gupta, "Automorphisms of quantum polynomials", submitted. arXiv: 2102.02859.

2. Ashish Gupta, A dichotomy for the GK dimensions of Simple Modules over twisted group algebras $k \ast A$ --- positive report from referee --- decision awaited from journal.

3. "On the distribution of αp modulo one in quadratic number fields", Stephan Baier and Dwaipayan Mazumder and Marc Technau, arXiv:2104.13170

4. Sudeshna Basu and Susmita Seal, Stability Results Of Small Diameter Properties in Banach Spaces, arXiv:submit/3559986 [math.FA] 15 Jan 2021

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

1. Dr. Ashish Gupta attended University of Haifa colloquium series online.

2. Dr. Sagnik Chakraborty attended 'IIT Bombay virtual commutative algebra seminar' which holds weekly lectures on commutative algebra.

3. Dr. Sagnik Chakraborty attended the '8th Indian School on Logic and its Applications', held online during Dec. 18-23, 2020.

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

Dr. Ashish Gupta has undertaken a NBHM project with the title "GK dimension of simple modules".

DEPARTMENT OF SPORTS SCIENCE AND YOGA

LIST OF TEACHING FACULTY MEMBERS

S. No.	Name	Designation
1	Dr. Uday Shankar Ray	Professor
2	Dr. Rupayan Bhattacharya	Professor
3	Dr. Kalipada Pal	Associate Professor
4	Dr. Kunal Sikder	Assistant Professor
5	Dr. Arkadeb Dutta	Assistant Professor
6	Dr. Subhadip Paul	Assistant Professor
7	Swami Samarpanananda	Monastic Faculty
8	Swami Kaleshananda	Monastic Faculty
9	Brahmachari Ajaatachaitanya	Monastic Faculty

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

S. No.	Programme	No. of Students
1	M.A/M.Sc Yoga	10
2	P.G Diploma in Yoga	11

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

S. No.	Name of scholars	Name of Supervisor
1	Bankim Biswas	Dr. Kunal Sikder
2	Gopinath Bhowmik Bhunia	Dr. Uday Shankar Ray
3	Subhasis Biswas	Dr. Rupayan Bhattacharya
4	Raju Roy	Dr. Uday Shankar Ray

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

1. Indrajit Sarkar, Shanti Ranjan Dasgupta, Kunal Sikder, and Rupayan Bhattacharya, Reverse-Relative Age Effect on motor fitness of district level handball players of West Bengal in course of talent hunting, *European Journal of Sports & Exercise Science*, 2020, 8 (3): 01-13
2. Dhiraj Dolai and Rupayan Bhattacharya, Utility of Range of Motion Measurements On The Classification Of Athletes, World Academy of Science, Engineering and Technology, *International Journal of Sport and Health Sciences*, Vol:14, No:12, 2020

3. Gopinath Bhawmick Bhunia and Uday Sankar Ray, Improved aerobic capacity with progressive incorporation of breathing maneuvers in yoga training *Journal of Advances in Sports and Physical Education*. 2020; 3(11):199-206. DOI: 10.36348/jspe.2020.v03i11.001
4. Triloki Prasad, Subhankar Ghosh, Asis Goswami, Static balance ability of persons with visual impairment on firm and foam surfaces, *European Journal of Adapted Physical Activity*, 2020 (vol. 13), issue 2, DOI: 10.5507/euj.2020.002
5. Roy Raju, U. S Ray, 2021. "Effect of yoga breathing maneuvers (shitali and sitkari pranayama) On heat stress management", *Journal of Complementary Medicine Research* JCMR-2020-11-224

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

Departmental Research Seminars

<i>Speaker</i>	<i>Title of talk</i>	<i>Date</i>
Indrajit Sarkar, MPhil Sports Science 2018-20	Reverse-Relative Age Effect on motor fitness of district level handball players of West Bengal in course of talent hunting	6 December 2020
Subhasis Biswas PhD Sports Science 2018-20	A Study on Resting Heart Rate and Heart Rate Variability of Athletes, Non-athletes and Cricketers	3 January 2021
Ankur Biswas PhD Sports Science 2018-20	Anthropometric profile of district level cricketers of West Bengal	10 January 2021

MISCELLANEOUS INFORMATION

Educational Excursion of M.Sc. Sports Science students to our Coimbatore faculty center

The students of M.Sc. Sports Science went to the Faculty of General and Adapted Physical Education and Yoga (GAPEY), at our Coimbatore campus on 7th February 2021 for a period of three months to:

- (i) do laboratory work
- (ii) do field training on various sports and
- (iii) do 4th semester project work.

FACULTY OF DISABILITY MANAGEMENT AND SPECIAL EDUCATION

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Dr. N. Muthaiah	Dean
2	Dr. S. Parween	Assistant Professor
3	Dr. J. B. Dheesha	Assistant Professor
4	Dr. K. Dhanalakshmi	Assistant Professor
5	Mr. S. Parthasarathy	Assistant Professor
6	Mrs. S.N. Hamsapriya	Assistant Professor
7	Mrs. M. Senthilvani	Assistant Professor
8	Dr. A. Sudha	Assistant Professor
9	Dr. Saumya Chandra	Assistant Professor
10	Dr. S. Logesh Kumar	Assistant Professor
11	Mrs. V. Indirani	Assistant Professor
12	Mrs. P. Sukumari	Assistant Professor

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	B. Ed. in Special Education (Hearing Impairment)	4
2	B. Ed. in Special Education (Intellectual Disability)	12
3	B. Ed. in Special Education (Visual Impairment)	2
4	Integrated B.Ed.-M.Ed. Special Education (Intellectual Disability)	11
5	M. Ed. in Special Education (Hearing Impairment)	3
6	M. Ed. in Special Education (Intellectual Disability)	1
7	M. Ed. in Special Education (Visual Impairment)	5
8	Ph. D. (Intellectual Disability)	4

STUDENTS PASSED OUT DETAILS OF THE YEAR

S. No.	Programme	No. of Students
1	B. Ed. in Special Education (Visual Impairment)	4
2	B. Ed. in Special Education (Hearing Impairment)	8
3	B. Ed. in Special Education (Intellectual Disability)	3
4	Integrated B. Ed. - M. Ed. Special Education (Intellectual Disability)	11
5	M. Ed. in Special Education (Visual Impairment)	1
6	M. Ed. in Special Education (Hearing Impairment)	3
7	M. Ed. in Special Education (Intellectual Disability)	3
8	M. Phil. in (Hearing Impairment)	4

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

S. No.	Name of the Scholar	Name of Supervisor
1	S. Roopavathy	Dr. Saumya Chandra
2	N. Uma Maheswari	Dr. Saumya Chandra
3	K. Kiruthiga	Dr. A. Sudha
4	Panna Dey	Dr. S. Logesh Kumar

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

Details of papers presented

S. No.	Name	Date	Title of the paper presented
1	Dr. J. B. Dheesha	30 September 2020	Evolution of Inclusive Education: Concept of Special School, Integrated School and Inclusive School for B.Ed. students of Department of Education, Mizoram University
2	Dr. A. Sudha	9 October 2020	Managing Children with Disabilities at Home by Catholic Health Association of India (CHAI), the Secretariat of LINC-Asia Network
3	Dr. S. Parween	15 October 2020	Principles of Inclusive Education organized by Indian Teacher Education Community and Manovikas College of Special Education, Ujjain (MP)
4	Dr. S. Parween and Dr. Saumya Chandra	3 December 2020	'Not all disabilities are visible' organized by Visva Bharati, Shantiniketan, West Bengal

5	Dr. S. Parween	12 March 2021	Role of General Educators in creating Inclusive Classrooms, Dr. SNS College of Education, Coimbatore
6	Dr. Saumya Chandra	15 to 17 March 2021	Curriculum Planning and Development jointly organized by RCI New Delhi, and Pope Paul Mercy Home Teachers Training Centre, Thrissur, Kerala

Details of publications in journals and books

S. No.	Author	Title of Paper	Journal / Book	ISSN/ISBN
1	Dr. A. Sudha	Development of Assessment Tools in Mathematics for Students with Intellectual Disability	Disability and Impairment (Vol. 34(1) August 2020	ISSN 2582-2047 RN/507028 /87
2	Mr. Gangadhara Rao J & Dr. A. Sudha	Government Schemes and Provisions for Providing Early Intervention Services to Children with Intellectual Disabilities -National Perspective	Sambodhi (UGC Care Group 1 Journal) Vol-44 No.-01 (XX) January-March (2021)	ISSN 2249-6661
		Attitude of Teachers in Facilitating Inclusive Education for Children with Intellectual Disabilities in Regular Schools	The Journal of Indian Art History Congress	ISSN 0975-7945 Volume-27, No.1(VIII) : March, 2021
3	Dr. Sampurna Guha & Dr. A. Sudha	Value Education Curriculum for children with Intellectual Disability	Kanishka Publications, New Delhi	ISBN 978-93-89484-45-8
4	Dr. S. Parween	The Ground Realities of Socio-economic Inclusion for Women with Visual Impairment	Research and Reflections on Education (UGC-CARE Approved) August 2020 (Vol:18 No:2B)	ISSN 0974-648X
		Teacher Motivation and Job Satisfaction Vs Digital Media – A Survey Study	E Monograph of Two Day International Online Conference on Cyber Psychology in the Tech-Fed Virtual World	ISBN 9781716852091
		Managing behavioral/emotional problems in inclusive classrooms and	Handbook of Research on Critical Issues in	IGI Global Publishers: Internationa

		understanding the best practices	Special Education for School Rehabilitation Practices	l Academic Publisher, Pennsylvania ISBN 9781799876304
5	Mr. Maged AL-Refi & Dr. S. Parween	Relationship between Study Habits and Spelling Errors among Students with Visual Impairment	Journal of Disability Management and Rehabilitation 6(2) October 2020	ISSN 2454-6437
6	Dr. Saumya Chandra	Leakage in the Human Energy Tank - The devastating Spinal Cord Injury	Journal Disabilities and Impairments Volume 34 (1) September 2020	ISSN 970356X
		Neuro-psychology & Brain-based Learning: Understanding the Phenomenon and their Relationship	Journal of Emerging Technologies and Innovative Research, Volume 33 (2), September 2020	ISSN 2349-5162
7	Dr. J. Dheesha B.	Awareness on Disability and Inclusive Education among the Prospective Teachers	Voices of Teachers and Teacher Educators, (NCERT Journal) Volume IX Issue I July 2020	ISSN 24551376
		Availability and Usability of Screen Reading Software by Students with Visual Impairment - Current Scenario	Indian Journal of Educational Technology, Vol. 2, No. 2, July 2020	ISSN 25818325
		Opinion of Students about Social Media on their Education and Social Performance.	E Monograph of Two Day International Online Conference on Cyber Psychology in the Tech-Fed Virtual World	ISBN 9781716852091

8	Dr. K. Dhanalakshmi	Training in Effective use of Vision in Students with Low Vision	Voices of Teachers and Teacher Educators (NCERT Journal), Volume IX Issue I July 2020	ISSN 24551376
9	Fr. Baiju Thomas & Dr. S. Logesh Kumar	Fostering ICT Based Education for Sustainable Development of Inclusive Classroom Setting	Role of ICT in Higher Education - Trends, Problems and Prospects (Book) Apple Academic Press	ISBN 978-1-77188-962-9
10	Dr. S. Logesh Kumar	Peer tutoring an effective strategy in creating support system for children with intellectual disabilities (CWID) in inclusive setting	International Journal of Research in Special Education	E-ISSN: 2710-3870
11	S. N. Hamsapriya	Teaching for Understanding: Children with Cochlear Implant to Ensure Successful Inclusion	Journal of Educational Research and Extension	ISSN 0973-6190

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES /SYMPOSIUMS HOSTED / ORGANISED DURING THE YEAR

International E-Conference

- ✓ International E-conference on “International Declarations and National Policies in Promoting Inclusive Education in the light of COVID-19 Pandemic” was held on 18th and 19th September 2020.
- ✓ Revered Swami Garishthananda, Administrative Head, RKMVERI, Coimbatore Campus delivered the benedictory address.
- ✓ Dr. Subodh Kumar, Member Secretary, Rehabilitation Council of India, New Delhi presented the key note speech.
- ✓ In total 207 participants registered for the programme.

- ✓ A five-day Online training Programme on “Creating Inclusive Classrooms through Curricular Adaptations” was organized by the FDMSE- RKMVERI, in Collaboration with Samagra Shiksha, Andhra Pradesh from 17.08.2020 to 21.08.2020.
- ✓ A state level training programme for 45 days on ‘Basics in Indian Sign Language’ for Government special school teachers of Tamil Nadu State

sponsored by State Commissioner for Persons with Disabilities, Government of Tamil Nadu, commenced on 1st October 2020.

- ✓ Second batch of training commenced on 9th December 2020.

Workshop & Awareness Programs

- ✓ The Department of Visual Impairment organized a Webinar on 'Policies and Schemes of Central and State Governments for People with Visual Impairment' on 18 December 2020.
- ✓ A Webinar on 'Self Advocacy and Personality Development for Individuals with Visual Impairment' was conducted on 23 January 2021. Mrs. M. Muthu Selvi, Manager, Indian Bank, and Vice President of All India Confederation of the blind was the resource person.
- ✓ Ph. D. Scholars and 3rd year students of Integrated B. Ed. - M. Ed.(ID) conducted a sensitization cum awareness program under the guidance of Dr. Saumya Chandra, on "Adolescence & transition of Children with Intellectual Disability: Significance of Vocational Skills" on 9 March 2021. In total, 78 students and faculty members participated in the event.
- ✓ The Department of Hearing Impairment organized an awareness programme on 3 March 2021 to observe the World Hearing Day.
- ✓ The Department of Intellectual Disability organized an awareness programme on 'Self Help Group' for Parents of Children with Intellectual Disabilities on 18 March 2021. Mr. S. Radhakrishnan, Community Organizer, Coimbatore Corporation was the resource person.
- ✓ FDMSE organized a five-day Therapeutic Training on 'Posture and Pain Management' for the Women of Vidyalyaya Staff Quarters from 2 to 5 Nov 2020.

Special Lectures

S. No.	Name	Designation	Topic	Date
1	Ms. Tarakeswari Murugesan	Veena Artiste and Researcher in Carnatic Music, Coimbatore	Music: Unlocking the locks of Mental Health with special reference to	27 August 2020

			Alzheimer's & Parkinson's	
2	Dr. R. Faiz Jahan Begum	Psychologist and Special Educator-SLD, Chennai	'Learning Disability: Screening, Assessment and the Role of Assistive Technology'	26 September 2020
3	Mrs. Lakshmi Mohan	Founder Director - Sowmanasya, Music therapist for Children with Autism, Chennai	Rhythm & Brain of Persons with Autism and the Effect of Music Therapy	20 February 2021
4	Dr. K. Renuga	Occupational Therapist, AMBIKA Pediatric Occupational Therapy Clinic, Coimbatore	Sensory integration, modalities and hand functions in occupational therapy for CwID	25 February 2020
5	Ms. Yukti Gupta	Assistant Professor, Dept of Special Education, SNTD Women's University, Mumbai	Functional assessment methods and tools for the Visually Impaired with Multiple Disability	16 March 2021

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

Project proposal: NCERT

- ✓ A project proposal submitted by Dr. Sudha A., titled 'Problem Based Learning Method to Teach Science Concepts among Tribal Children' for Rs. 7.35 lakh has been approved by Division of Educational Research (DER), National Council for Educational Research and Training (NCERT), New Delhi. The duration of the project is of 2 years (2020-22).

Project proposal: Azim Premji University Research Funding 2020

- ✓ Dr. S. Parween and Dr. J. B. Dheesha submitted a Project Proposal on 'Development of Accessible Resources for Improving Mathematics Learning among Children with Visual Impairment at Lower Primary Level' to Azim Premji University Research Funding Programme 2020.

- ✓ Dr. Sudha A. submitted a project proposal on 'Digital Toolkit for Children with Intellectual Disability' to Azim Premji University Research Funding Programme 2020.

Project proposal: ICSSR

- ✓ The Short Duration Research Project entitled "Effect of using Computer with Screen Reader on Creative Writing Skills among Students with Visual Impairment at Primary level" submitted by Dr. K. Dhanalakshmi got selected for the Grant of Rs, 90,000/- by the Indian Council of Social Science Research, Southern Regional Centre, Osmania University, Hyderabad.

OTHER MISCELLANEOUS INFORMATION

Faculty Development Program

- ✓ 'Sources of Publication Strategies' on 17 October 2020. Dr. P. Lalitha, Associate Professor, Department of Chemistry, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, was the resource person. Faculty members of all the four faculties of RKMVERI attended the FDP programme.
- ✓ 'Training for Social Connectedness and Inspiration' sponsored by AICTE, ATAL from 1 to 5 February 2021. The sessions were handled by senior monks of Ramakrishna Order and renowned motivational speakers from various states.
- ✓ 'Digital Teaching' in collaboration with Cognizant Outreach, Coimbatore, on 13 March 2021.

International Day of Persons with Disabilities

- ✓ International Day of Persons with Disability was observed on 3 December, 2020 through online mode.
- ✓ Dr. N. Muthaiah, Dean FDMSE, faculty members and trainee teachers attended the webinar on "Swami Vivekananda's Educational Vision and National Educational Policy 2020" organized by RKMVERI Belur Campus, on 19 October 2020.
- ✓ Dr. N. Muthaiah, Dean FDMSE, nominated by the National Educational Policy Draft Committee, Ministry of Education, New Delhi, as a member of 'Informal Group of Experts and Mentors for Implanting NEP 2020 in Universities and Autonomous Colleges'.
- ✓ Dr. N. Muthaiah, Dean FDMSE, and Faculty members attended a workshop on 'Enterprise Resource Planning (ERP) - CAMU Software Demonstration' organized by Ramakrishna Mission Vidyalaya, on 19 December 2020.

Faculty member as RCI visiting experts

- ✓ Dr. Saumya Chandra acted as RCI visiting expert to accord recognition to Certificate Course in Care Giver Programme at Amar Seva Sangam, Ayikudu, Tenkasi, on 9 February 2021.

Award

- ✓ Dr. K. Dhanalakshmi, In-charge of Centre of Excellence for Low Vision Studies, FDMSE, received the State Level Best Teacher Award for the year 2020 for 'Teaching Students with Visual Impairment' from the Chief Minister of Tamil Nadu on 21st December 2020.

Extension Activity

- ✓ In the wake of COVID-19 short videos on wearing masks, washing hands, maintaining social distancing, pre academics and academics were made and circulated among the parents of children with special needs.
- ✓ A mini project on "Learning without Borders" was initiated by Center for Excellence of Low Vision Studies, FDMSE, with the support of Mr. S. Shankar Subbiah, AT Consultant, Agate Infotek, Chennai, involving Dr. K. Dhanalakshmi, Coordinator and parents of students with visual impairments studying in Inclusive schools of Coimbatore.

FACULTY OF GENERAL & ADAPTED PHYSICAL EDUCATION AND YOGA

LIST OF TEACHING FACULTY MEMBERS

S. No.	Name	Designation
1	Dr. R. Giridharan	Associate Professor & Head
2	Dr. A. Sathiya Moorthy	Assistant Professor
3	Dr. Dibakar Debnath	Assistant Professor
4	Dr. D. Yuvaraj	Assistant Professor
5	Dr. M. Ramajayam	Assistant Professor
6	Sri S. Sakthivel	Assistant Professor
7	Sri S. Rajavarman	Assistant Professor

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

S. No.	Programme	No. of Students
1	B. Sc. in Physical Edu. Health Edu. and Sports	77
2	Bachelor of Physical Education	50
3	Master of Physical Education	19

PARTICIPATION DETAILS IN COMPETITIONS, CULTURAL EVENTS ETC

Date	Name/Team	Tournament	Positions
24.01.2021	Football	5-a-side football tournament	Second Place
30.01.2021	M. Vignesh	3rd State Level Silambam Competition	Gold Medal
20.02.2021	L. Mithilesswar	2021 Online Open National Taekwondo Speed Kicking Championship	Bronze Medal
27.02.2021 & 28.02.2021	S. Niranjan	Tamilnadu State Weightlifting Championship in the Bench Press unequipped	Silver Medal
22.03.2021	S. Niranjan	Open State Strong Man 2021 Championship in the Bench Press	5 th Position

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

Details of papers presented in conferences, seminars, etc.

- Dr. M. Ramajayam, Assistant Professor presented a research paper titled “Promotion of Abdominal Strength Endurance and Playing Ability on Handball Players on Impact of Short Term Specific Drills with Circuit Training” in the International Multi-disciplinary Conference on Current Research Trends 2020 organized by Research Circle, Yavatmal, Maharashtra on 19th & 20th September 2020.

Details of publications in books

S. No.	Name of the Staff	Book Titled	ISBN and Publications
1	Dr. M. Ramajayam	Applied Statistics in Physical Education and Sports (Master of Physical Education – Based on NCTE New Syllabus)	ISBN No: 93-80543-43-3 published by Iris Publications, Coimbatore.
2	Dr. M. Ramajayam	Sports Psychology and Sociology (Bachelor of Physical Education (Second Year) – Based on NCTE New Syllabus - 2019)	ISBN No: 978-93-89339-65-9 published by Mahi Publications, Ahmedabad.
3	Dr. A. Sathiya Moorthy	Athletic Care and Rehabilitation (MPed New Syllabus)	ISBN No: 789390-974160. Published by Sports Publication, New Delhi
4	Dr. Dibakar Debnath & Dr. D. Yuvaraj	A Handbook of General and Adapted Minor Games”	ISBN No: 789390-974177 published by Sports Publication, New Delhi.

Details of publications in journals

S. No.	Name of the Author	Title	Name of the journal with ISSN NO	Issue and volume
1	Dr. R. Giridharan	Influence of wheelchair mobility training on sprint performance of	Juni Khyat (UGC Care Group I Listed Journal ISSN: 2278-4632)	Vol-10 Issue-7 No. 3 July 2020 (P-248-254)

		amateur wheelchair tennis players		
2	Dr. R. Giridharan	Analysis and Identification of Blockades among Family Members of Children with Disabilities to allow them to Participate in Sports	Juni Khyat (UGC Care Group I Listed Journal ISSN: 2278-4632)	Vol-10 Issue-7 No. 3 July 2020 (P-225-261)
3	Dr. E. Saravanan	Analysis and Identification of Blockades among Family Members of Children with Disabilities to allow them to Participate in Sports	Juni Khyat (UGC Care Group I Listed Journal ISSN: 2278-4632)	Vol-10 Issue-7 No. 3 July 2020 (P-225-261)
4	Dr. E. Saravanan	Influence of wheelchair mobility training on sprint performance of amateur wheelchair tennis players	Juni Khyat (UGC Care Group I Listed Journal ISSN: 2278-4632)	Vol-10 Issue-7 No. 3 July 2020 (P-248-254)
5	Dr. E. Saravanan	Influence of 8 Weeks of Step Aerobics Training On Cardio Vascular Endurance and Explosive Power Among Adult Men	Dogo Rangsang Research Journal (UGC Care Group I Journal ISSN : 2347-7180)	Vol-10 Issue-07 No. 8 July 2020 (P-103-108)
6	Dr. E. Saravanan	Comparative Effects of Traditional Warming up And Suryanamaskar as Warming up on Explosive Power of Volleyball Players	Dogo Rangsang Research Journal (UGC Care Group I Journal ISSN : 2347-7180)	Vol-10 Issue-07 No. 8 July 2020 (P-109-114)

7	Dr. M. Ramajayam	Isolated and Combined Effects of Different Intensities Suryanamaskar Practice on Flexibility and Peak Expiratory Flow Rate of Sports Men	Tathapi (UGC Care Journal ISSN:2320-0693)	Vol-19-Issue-53-June-2020 (P-281-292)
8	Dr. M. Ramajayam	Individualised Combined Effects of Brisk Walking Fartlek Training on HDL and Total Cholesterol on Untrained College Men	Juni Khyat (UGC Care Group I Listed Journal ISSN: 2278-4632)	Vol-10 Issue-8 No. 1 August 2020 (P-39-49)
9	Sri S. Sakthivel	Effect of Specific Kabaddi Skill Training with Video Feedback Instructional Training on Physical Fitness Variables and Overall Playing Ability Among Inter-University Male Kabaddi Players	Journal of Information and Computational Science (UGC CARE Group II Certified Journal with ISSN: 1548-7741)	Vol:10 Issue:3 March-2020
10	Dr. R. Giridharan	Effect of Circuit Training Coordinative Abilities Training Specific Skills Training and Combined Training on Selected Biomotor and Skill Performance Variables among Inter Collegiate Male Basketball Players	KALA: Journal of Indian Art History Congress ISSN: 0975-7945	Volume No. 26, No.2(XI) : 2020-2021
11	Dr. M. Ramajayam	Relationship on Hand Grip Strength and Arm Length with Performance in Para	Sambodhi with ISSN: 2249-6661	Vol-44 No.-01 (II) January-March (2021)

		Sitting Female Volleyball Players		Impact Factor 5.80
12	Sri S. Rajavarman Dr. R. Giridharan	Comparison of Auditory Cue and Vocal Instruction for Person with Visual Impairment	Sambodhi with ISSN : 2249-6661	Vol-44-No.01 (VIII), January - March 2021 Impact Factor 5.80

13	Dr. D. Yuvaraj Dr. Dibakar Debnath	Effects of Progressive Resistance Training on Speed Arm and Leg Explosive Power of School Athletes	Sambodhi with ISSN : 2249-6661	Vol-44-No.01 (VIII), January – March 2021 Impact Factor 5.80
14	Dr. Dibakar Debnath	Effects of Individual and Combined Training of Kalaripayattu and Karate on Selected Corporal Variables among Physical Education Learners	Sambodhi with ISSN : 2249-6661	Vol-44-No.01 (VIII), January – March 2021 Impact Factor 5.80
15	Dr. D. Yuvaraj	Impact of Inclusive Games on Psychomotor Variables of Children with Intellectually Disabled	Sambodhi with ISSN : 2249-6661	Vol-44 No.-01 (VIII) January- March (2021) Impact Factor 5.80
16	Dr. Dibakar Debnath	Effect of Adapted Movement Physical Activities on Cardio Respiratory Endurance of Children with Intellectual Disability	KALA: Journal of Indian Art History Congress	Vol-27- No.1(VI) 2021 Impact Factor 6.125
17	Sri S. Sakthivel	Influence of Visual Feedback Specific Skill Training Program on Biomotor Fitness and Skill Performance Variables of Hearing Impaired Male Kabaddi Players	Sambodhi with ISSN : 2249-6661	Vol-44-No.01 (XX), January – March 2021 Impact Factor 5.80

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

Participation in online Webinars:

<i>S. No.</i>	<i>Name of the Staff</i>	<i>No. of Webinars</i>
1	Dr. R. Giridharan	22
2	Dr. A. Sathiya Moorthy	56
3	Dr. Dibakar Debnath	72
4	Dr. D. Yuvaraj	25
5	Dr. E. Saravanan	50
6	Dr. M. Ramajayam	108
7	Sri S. Sakthivel	25
8	Sri S. Rajavarman	27
9	Sri Becon Debbarma	30

DETAILS OF SPECIAL LECTURES / WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS HOSTED / ORGANISED DURING THE YEAR

GAPEY organized an **International Webinar Series- I on Inclusive Adapted Physical Education** from 22.10.2020 to 24.10.2020. Two hundred and twenty seven participants attended in the webinar:

International delegates	-	07
Delegates from Other States	-	56
Delegates from Tamil Nadu	-	33
Student Delegates	-	131

Dr. Suzanna Rocco Dillon, Associate Professor, Adapted Physical Education and Adapted Physical Activity, Texas Woman University, Denton, USA, Dr. Linda Hilgenbrinck, Adapted Physical Education Specialist, Denton Independent School District, Texas, USA, and SriPadmini Chennapragada, Program Director, Indian Wheelchair Tennis Tour and Disability Sport Research India were the eminent resource persons.

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

The following staff members successfully uploaded their project proposals under DST – SATYAM on 08th March and 30th April.2020.

S. No.	Name of the Staff	Title
1	Dr. R. Giridharan	Designing, Validation and Feasibility of Yoga Therapy with Task Oriented Functional Activities on Selected Physical Fitness parameters and Cognitive Functioning of Children with Spastic Cerebral Palsy
2	Dr. Dibakar Debnath	Individualized and Combined Effects of Yoga asanas and Meditation on Selected Cardiopulmonary and Psychological Variables of Children With Intellectual Disabilities
3	Dr. D. Yuvaraj	Effect of Yoga on Lifestyle Management, Physical and Mental Fitness of Rural and Urban Women and Their Family
4	Dr. E. Saravanan	"Influence of mind-body therapies with yogic approaches on parasympathetic nervous system functions among children with intellectual disability and autism."
5	Dr. M. Ramajayam	Isolated and Combined Effects of Power Yoga With Omkar Meditation on Selected Body Weight Body Composition Biochemical Variables and Brain Rhythms of Adolescent Obese Children

MISCELLANEOUS ACTIVITIES:

Faculty Development Programmes:

- Faculty Development Programme on ICT Tools for Effective Teaching and Learning was held on 3rd July 2020 at Ramakrishna Mission Vidyalaya College of Arts & Science, MCA Computer Laboratory.
- Faculty Development Programme on "Sources of Publication Strategies", organized by RKMVERI Coimbatore Campus on 17.10.2020 through online mode.

Certificate Course in Fitness Trainer (Level – 4)

- UGC has approved our proposal to offer NSQF Certificate Course in Fitness Trainer (Level – 4) categorized under 'Sports Physical Education and Leisure Skills' on 22.09.2020. The admitted students' data were uploaded on the NSQF portal on 02.11.2020.

Training Centre in Sports Coaching (NSNIS programme)

- A proposal to start the Training Centre in Sports Coaching (NSNIS programme) was sent to Sports Authority of India, Netaji Subhas National Institute of Sports, Patiala, Punjab and Sports Authority of India, Lakshmi Bai National College of Physical Education, Thiruvananthapuram, Kerala on 12.11.2020.

Sports Centre for Persons with Disability

- A proposal for establishment of Sports Centre for Persons with Disability was presented to the Rotary Club of Coimbatore on 28.11.2020.

Augmentation of Infrastructural Facilities:

- ***Sports and Games:*** Establishment of new playground facilities by cleaning the bushes and leveling the area in front of GAPEY building (Eastern side) was started on 13.03.2021.

Green Initiative

- To encourage eco-friendly environment and as a part of green initiative, our faculty planted twenty saplings in the western side of the Academic Building premises.
- As a precautionary measure owing to COVID – 19 pandemic situations our faculty provided second dose of Arsenicum Album 30C for our students for three days from 16th to 18th March 2021. The students were also strictly instructed to follow the standard operating procedures as prescribed by the State Government.

FACULTY CENTRE FOR AGRICULTURAL EDUCATION AND RESEARCH

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Dr. S. Suresh	Assistant Professor (Entomology)
2	Dr. S. Sureshkumar	Assistant Professor (Agricultural Biotechnology)
3	Dr. K. Vinoth Kumar	Assistant Professor (Environmental science)
4	Dr. N. Jaivel	Assistant Professor (Agricultural Microbiology)
5	Dr. M.Tamil Selvan	Assistant Professor (Mathematics)
6	Dr. G.Yoganathan	Assistant Professor (Soil Science)
7	Dr. M.Selvam	Assistant Professor (English)
8	Dr. K.Mohanasundram	Assistant Professor (Plant breeding and Genetics)
9	Dr. M.Vijaya Kumar	Assistant Professor (Agronomy)
10	Mr.B.Muthuraja	Assistant Professor (Agricultural Economics)
11	Mr.S.Chandraprakash	Assistant Professor (Plant Pathology)
12	Mr. A. Suresh	Assistant Professor (Agricultural Extension)
13	Mr.S.Kasinathan	Assistant Professor (Agricultural Microbiology)
14	Mr. J. Ganesh Moorthy	Assistant Professor (Agricultural Engineering)
15	Dr. C. Partheban	Assistant Professor (Crop Physiology)

STUDENTS PASSED OUT DETAILS OF THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	B.Sc Agriculture	54

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

DETAILS OF STUDENTS PURSUING HIGHER EDUCATION:

<i>S. No.</i>	<i>Name of the student pursuing</i>	<i>Institution joined and course</i>
1	S. R. Harish Chandar University	M.Sc. Plant Breeding and Genetics at Centurion of Technology and Management, Odisha.
2	A. Ponselvan University	M.Sc. Plant Breeding and Genetics at Centurion of Technology and Management, Odisha.

- 3 P. M. Niranjan Kumar MBA in Agribusiness Management at Annamalai University,
Chidambaram.

DETAILS OF STUDENTS PLACED:

<i>S. No.</i>	<i>Name of the student</i>	<i>Organisation / Company where placed</i>
1	R. Indhrasith	Bannari Amman Sugars Pvt. Ltd, Erode, Tamil Nadu
2	G. Pranesh	Bannari Amman Sugars Pvt. Ltd, Erode, Tamil Nadu

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

Details of publications in journals and books.

- 1 N. Jaivel.2020. Studies on Growth Characteristics of Hydrocarbon Producing Botryococcus braunii. Madras Agric. J., 2020; 107 (7-9): 1-6.
- 2 K. Vinoth Kumar, B. Anish Raj, K.S. Prajith, N. Raghul Raj, K. Sadanish, A. Sriraghul and M. Tamilselvan.2020. Efficacy of Vermicompost on Growth and Yield Parameters of Lycopersicum esculentum (Tomato). In: Proceedings of National Conference on Promoting Agriculture for Farmers Livelihood and Food Security (PAFLFS - 2020), RKMVERI-FAR, Coimbatore, p: 138. ISBN No.978-93-5407-705-0.
- 3 N. Jaivel, R. Rajesh and P. Marimuthu.2020. Invitro evaluation of the Streptomyces Formulation on the growth of Paddy Seedlings. In: Proceedings of National Conference on Promoting Agriculture for Farmers Livelihood and Food Security (PAFLFS - 2020), RKMVERI-FAR, Coimbatore, p: 144. ISBN No.978-93-5407-705-0.
- 4 A. Suresh, T. Masanaselvam and S. Janani. 2020. Farmers as Entrepreneur in Poultry Production–A Case Study. In: Proceedings of National Conference on Promoting Agriculture for Farmers Livelihood and Food Security (PAFLFS - 2020), RKMVERI-FAR, Coimbatore, p: 79. ISBN No.978-93-5407-705-0.
- 5 S. Chandraprakash, K. Manonmani, N. Revathy and E. Kokiladevi.2020. Biochemical Characterization of Xanthomonas oryzae pv. oryzae causing Bacterial Leaf Blight Disease of Paddy. In: Proceedings of National Conference on Promoting Agriculture for Farmers Livelihood and Food Security (PAFLFS - 2020), RKMVERI-FAR, Coimbatore, p: 186. ISBN No.978-93-5407-705-0.
- 6 G. Yoganathan, K. Mohana Sundaram, S.R. Harish Chandar, R. Mugil, R. Balaji, B. Prabhu and S. Vinay Kumar.2020. An Appraisal on Quality of Irrigation Water in Periyanaickenpalayam Block. In: Proceedings of National Conference on Promoting Agriculture for Farmers Livelihood and Food Security (PAFLFS - 2020), RKMVERI-FAR, Coimbatore, p: 192. ISBN No.978-93-5407-705-0.

- 7 G. Yoganathan, K. Mohanan Sundaram, S.R. Harish Chandar, S. Vinay Kumar, S.R. Harish Chandar, R. Balaji, S. Pavith and S. Surjith.2020. Assessment of Ground Water Quality & Physico-Chemical Characteristics of Soil in Noyyal River Area of Thondamuthur Block. In: Proceedings of National Conference on Promoting Agriculture for Farmers Livelihood and Food Security (PAFLFS - 2020), RKMVERI-FAR, Coimbatore, p: 201. ISBN No.978-93-5407-705-0.

MISCELLANEOUS INFORMATION

- FAR staff members attended the Faculty Development Programme on "ICT Tools for effective teaching and learning" conducted by SRKV-CAS on 3rd July, 2020.
- Staff members attended the Faculty Development Programme (FDP) on "Sources of Publication Strategies" held on 17.10.2020 through online mode.
- Staff members participated in the Webinar on "Swami Vivekananda's Educational Vision vis-a-vis National Educational Policy 2020" held on 19 Oct 2020 through online mode.
- The Dean (FAR) gave a guest lecture on "Traditional Practices and Healthy Living" on 11.12.2020 through a webinar at GAPEY.
- The teaching faculty members of FAR attended the Enterprise Resources Planning – Software Demo Programme on 19.12.2020 at Mini Auditorium of Arts and Science College.
- A brainstorming session on "How to Improve the Teaching – Learning Situation" at RKMVERI-FAR was conducted on 14.12.2020, 21.12.2020 and 26.12.2020 and the faculty members participated in the session.
- The faculty development programme for “Enhancing teaching skills” was conducted by College of Education, SRMV on 20.02.2021 and FAR faculty members attended the programme.
- The faculty members attended the FDP on "Digital Teaching" on 13.3.2021 through online mode.
- The faculty members and students of FAR attended the webinar entitled "Proteomics in our daily life: from Agriculture to Health" on 18.03.2021 organized by Proteomics Society along with School of Biological Science, RKMVERI through online mode.
- A crop cafeteria was established with different agricultural and horticultural crops.
- Different units like, sericulture unit, mushroom unit, composting unit, vermicomposting unit, azolla unit, medicinal garden, poly house, green house and mist chamber units were established.

FACULTY OF INTEGRATED RURAL DEVELOPMENT AND MANAGEMENT

LIST OF TEACHING FACULTY MEMBERS

S. No.	Name	Designation
1	Dr. Tapash Dasgupta Dean	IRDM Faculty Centre
2	Dr. Ashutosh Sawarkar Breeding	Assistant Professor, Genetics and Plant
3	Dr. Atul Pradhan* Breeding	Post Doctoral Fellow, Genetics and Plant
4	Dr. Pranab Kumar Nag Mangement	Professor, Environment and Disaster
5	Dr. Jhilly Dasgupta*	Teaching Cum Research Assistant, EDM
5	Dr. Rupak Goswami Dev.	Associate Professor, Agriculture and Rural
6	Dr. Sanchayeeta Misra Dev.	Assistant Professor, Agriculture and Rural
7	Mr. Supriya Ghorui*	Teaching Assistant cum Field Organizer, ARD
8	Mr. Hiratan Dey*	Teaching Assistant cum Field Organizer, ARD
9	Dr. Kalyan Ganguly	Professor (Hon.), Agricultural Biotechnology
10	Dr. Amitava Chatterjee Biotechnology	Emiratus Professor, Agricultural
11	Dr. Dinendra Ray Choudhury	Professor (Hon.), Agricultural Biotechnology
12	Dr. Gautam Chatterjee # Biotechnology	Assistant Professor, Agricultural
13	Dr. Kishor Kumar # Biotechnology	Assistant Professor, Agricultural
14	Dr. Alok Kumar Hazra	Scientist, Quality Testing Laboratory (Ayush)
15	Dr. Syandan Sinha Ray*	Teaching Cum Laboratory Assistant, AgBt
16	Dr. Kunal Ray Professor	Medical Biotechnology
17	Dr. Subrata Banerjee	Professor, Medical Biotechnology
18	Dr. Rukhsana Chowdhury	Professor, Medical Biotechnology
19	Dr. Debasis Bandyopadhyay	Professor, Medical Biotechnology
20	Dr. Kunal Sikder##	Professor, Medical Biotechnology

21 Dr. Debapriya Ghosh* Teaching and Research Associate, Medical Bio
tch

22 Dr. Saran Chattopadhyaya* Post Doctoral Fellow, Medical Biotechnology

Joint affiliation to Division of Agricultural Biotechnology and School of Medical
Biotechnology

Joint affiliation to School of Medical Biotechnology and School of Sport Sciences and
Yoga

* Teaching Assistant cum Field Organizer/Teaching Assistant cum Laboratory Assistant
/ Teaching cum Research Associate/Teaching cum Research Assistant/ Post-
DoctoralFellow

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. in Agricultural Biotechnology (AgBT)	14
2	M. Sc. in Medical Biotechnology (MBT)	13
3	M. Sc. in Environment and Disaster Management (EDM)	10
4	M. Sc. in Agriculture and Rural Development (ARD)	25
5	M. Sc. (Ag) in Genetics and Plant Breeding (GPB)	11
6	PG Diploma in Post Harvest and Food Technology (PHFT)	11
7	PhD in Agricultural Biotechnology	1
8	PhD in Medical Biotechnology	3
9	PhD in Environment and Disaster Management	1
10	PhD in Agriculture and Rural Development	5

STUDENTS PASSED OUT DETAILS OF THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. in Agricultural Biotechnology (AgBT)	12
2	M. Sc. in Environment and Disaster Management (EDM)	9
3	M. Sc. in Agriculture and Rural Development (ARD)	24
4	M. Sc. (Ag) in Genetics and Plant Breeding (GPB)	3
5	PG Diploma in Post Harvest and Food Technology (PHFT)	7
6	Ph. D. in Agriculture and Rural Development	1

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

DETAILS OF STUDENTS PURSUING HIGHER EDUCATION:

<i>S. No.</i>	<i>Name of the student</i>	<i>Institution joined and course persuing</i>
1	Kalyan Roy	Ph. D. at the IRDM Faculty Centre, RKMVERI
2	Kaushik Mallick	Ph. D. at the IRDM Faculty Centre, RKMVERI
3	Atanu Mondal	Ph. D. at DAE-Saha Institute of Nuclear Physics
4	Jisan Sarwar	Ph. D. in Biotechnology at Jadavpur University
5	Sunayna Roy	Ph. D. at the IRDM Faculty Centre, RKMVERI

DETAILS OF STUDENTS PLACED:

<i>S. No.</i>	<i>Name of the student</i>	<i>Organisation / Company where placed</i>
1	Bappa Mridha Cooperative	Production Officer at Sundarban Milk Union Society (Govt. of West Bengal)
2	Anushree Mukherjee Society	Field Officer at Sundarban Milk Union Cooperative (Govt. of West Bengal)
3	Archita Sahu	Trainee at WBADMI Project
4	Sejuti Bhattacharjee	Project Associate at Shamahita Math, Bankura
5	Paramita Roy	Project Executive at RajarhatPrasari (A voluntary NGO)
6	Twinkle Mukherjee NGO)	Project Executive at RajarhatPrasari (A voluntary NGO)
7	Ritam Chakraborty NGO)	Project Executive at RajarhatPrasari (A voluntary NGO)
8	Samik Banerjee Magistrate	Project Associate at IIT, Kharagpur and District Office, Bankura (Collaborative Project)
9	Moitreyee Dey Magistrate	Project Associate at IIT, Kharagpur and District Office, Bankura (Collaborative Project)
10	Kuhelika Chakraborty	Project Associate at Uttaakhand Based NGO
11	Meghachhaya Misra	Consultant, Child in Need Institute (CINI)

12	Mukta Bhattacharyya Jharkhand	Field officer at 4'S under the aegis of UNICEF,
13	Diptayan Dass Voluntary NGO	Field officer at Pragya – An International
14	Diya Das	CINI-Tata Trust
15	Sudeshna Bhattacharyya	Shaw-Wales (An Agribased Company)
16	Uday Mondal	Trainee at Paustik Life (A Farmers Producer based Organization)
17	Supreeta Das	Production Specialist at Wipro Technologies

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

<i>S. No.</i>	<i>Name of the Scholar</i>	<i>Name of Supervisor</i>
1	Anirneeta De, GPB	Prof. Tapash Dasgupta
2	Shyam Ghosh, GPB	Prof. Tapash Dasgupta
3	Sangita Patra, ARD	Dr. Rupak Goswami
4	Kalyan Roy, ARD	Dr. Rupak Goswami
5	Kunal Singh, ARD	Dr. Rupak Goswami
6	Riya Bhattacharyya, ARD	Dr. Rupak Goswami
7	Poulomi Sen, ARD	Dr. Sanchayeeta Misra
8	Kaushik Mallick, ARD	Dr. Sanchayeeta Misra
9	Vibha Singh, AgBT	Dr. Md. Nasim Ali
10	Shibasis Mukherjee, AgBT	Dr. Gautam Chatterjee
11	Adrija Banerjee, AgBT	Dr Kishor Kumar
12	Argha Chakraborty, AgBT	Dr. Gautam Chatterjee
13	Rantim Bhattacharyya, AgBT	Dr. Alok Kumar Hazra
14	Akash Kumar Halder, MBT	Dr. Kunal Sikder
15	Debdatta Talukdar, MBT	Dr. Kunal Sikder
16	Soumyajyoti Ghosal, MBT	Dr. Arkadeb Dutta
17	Nitin Garewal, EDM	Prof. P.K. Nag
18	Sunayna Roy, EDM	Prof. P.K. Nag

GPB = *Genetics and Plant Breeding*

- ARD = Agriculture and Rural Development
 AgBT = Agricultural Biotechnology
 MBT = Medical Biotechnology
 EDM = Environment and Disaster Management

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

S. No.	Name of the Teaching Faculty	Title of the Publication/ Journal
1	Dr. Subrata Banerjee	miRNA 146b mediates the regulation of nucleolar size and activity in polyploidy megakaryocytes. <i>Biol. Cell</i>
2	Dr. Amitava Chatterjee	Effect of curcumin on Cell-ECM interaction in human breast cancer cells MDA-MB-231. <i>Biosc. Biotech. Res. Comm.</i>
3	Dr. Kunal Sikder	Reverse-Relative age effect on motor fitness of district level handball players of West Bengal in course of talent hunting. <i>European J Sports Exercise Science.</i>
4	Goswami, R., Roy, K., Dutta, S., Ray, K., Sarkar, S., Brahmachari, K., ... & Majumdar, K. (2021)	Multi-faceted impact and outcome of COVID-19 on smallholder agricultural systems: Integrating qualitative research and fuzzy cognitive mapping to explore resilient strategies. <i>Agricultural systems</i> , 189, 103051.
5	Goswami, R., & Roy, K. (2021)	Mental modelling for the researchers of extension science: A primer. In Maity et al. (Eds) <i>Psychometric Scale Construction Techniques: Basics to Advances</i> , (95-104) National Dairy Research Institute, Karnal. ISBN: 978-81-952712-0-7
6	Dutta, S., Chakraborty, S., Goswami, R., Banerjee, H., Majumdar, K., Li, B., & Jat, M. L. (2020).	Maize yield in smallholder agriculture system—An approach integrating socio-economic and crop management factors. <i>PloS one</i> , 15(2), e0229100.
7	Ray, K., Sen, P., Goswami, R., Sarkar, S., Brahmachari, K.,	Profitability, energetics and GHGs emission estimation from rice-based cropping systems in the

- Ghosh, A., & Mainuddin, M. (2020). coastal saline zone of West Bengal, India. *PloS one*, 15(5), e0233303.
- 8 Saha, S., & Goswami, R. (2020). Destinations of Male Outmigration and their Drivers in Indian Sundarbans. *Space and Culture, India*, 8(1), 111-142.
- 9 Goswami, R., Brodt, S., Patra, S., Dasgupta, P., Mukherjee, B., & Nandi, S. (2020) Resource Interaction in Smallholder Farms is Linked to Farm Sustainability: Evidence from Indian Sundarbans. (Preprint) doi: 10.20944/preprints202012.0311.v1
- 10 Dey A, Hazra AK, Mukherjee A, Nandy S, Pandey DK Chemotaxonomy of the ethnic antidote *Aristolochia indica* for aristolochic acid content: Implications of anti-phospholipase activity and genotoxicity study, *Journal of Ethnopharmacology*, 266 (2021) 113416, <https://doi.org/10.1016/j.jep.2020.113416>
- 11 Dey A, Hazra AK, Nandy S, Kaur P, Pandey DK. Selection of elite germplasms for industrially viable medicinal crop *Bacopamonnieri* for bacoside A production: An HPTLC-coupled chemotaxonomic study. *Industrial Crops & Products*, 158 (2020) 112975. <https://doi.org/10.1016/j.indcrop.2020.112975>.
- 12 Bhattacharyya S, Kumar R, Sengupta G, Hazra AK, Sur TK Chlorogenic Acid Enriched Green Coffee Ameliorated Renal Injury in Rats. *Mymensingh Med J*, (2020) 29: 991-1000.
- 13 Nandy S., Hazra A.K., Pandey D.K., Ray P., Dey A. Elicitation of industrially promising vanillin type aromatic compound 2-hydroxy 4-methoxy benzaldehyde (MBALD) yield in the in-vitro raised medicinal crop *Hemidesmus indicus* (L) R. Br. by methyl jasmonate and salicylic acid, *Industrial Crops & Products*, 164 (2021) 113375. <https://doi.org/10.1016/j.indcrop.2021.113375>

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

S. No. Name of the Teaching Faculty

Details

- 1 Dr. Gautam Chatterjee Attended DST-SERB sponsored One-day Workshop

		on 'Hands-on Learning with Basic Bioinformatics for Beginners' at ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), Barrackpore, India, 2020.
2 XV	Dr. Gautam Chatterjee	Attended and delivered an invited talk at the Annual Group Meeting of All India Network Project on Organic Farming (AI-NPOF) via video conferencing mode (virtual), 2020.
3	Dr. Gautam Chatterjee	Participated as a Resource person to deliver a lecture on 'Emerging Role of Centromeres in Genome Evolution to Chromosome Manipulation' in the ICAR sponsored Training Programme at ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), 2020.
4	Dr. Gautam Chatterjee	Attended one-month 2nd Faculty Induction Programme organized by UGC-HRDC, Jadavpur University, 2021.
5	Dr. Gautam Chatterjee	Attended one-week Workshop on MOOCS, E-content Development and Open Educational Resources organized by UGC-HRDC, University of North Bengal, 2021.
6	Dr. Syandan Sinha Ray	Attended one-week Hands on Workshop on Molecular Biology Techniques organized by Department of Botany, The University of Calcutta, 2021.
7	Dr. Syandan Sinha Ray	Attended DST-SERB sponsored One-day Workshop on 'Hands-on Learning with Basic Bioinformatics for Beginners' at ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), Barrackpore, India, 2020.
8	Dr. Kunal Sikder	Attended webinar on 'Impact of COVID-19 on human health'

- and society” organized by National Academy of Sciences (NASI) Kolkata chapter as a part of the ‘JAGRUKTA ANDOLAN’, 2020.
- 9 Dr. Kunal Sikder Science’ Attended one-day symposium on ‘Advancement of Science’ by New Jersey Academy of Science, USA, 2020.
- 10 Dr. Saran Chattopadhyaya analysis Attended one-day webinar on ‘The importance of of the tumor microenvironment in cancer immunity’, 2021.
- 11 Dr. Saran Chattopadhyaya Cytometry and Attended one-day webinar on ‘Imaging Flow Chromosomal Analysis of Blood Cancers’, 2021.
- 12 Dr. Saran Chattopadhyaya cytometry Attended one-day webinar on ‘Integrating flow and single-cell multi-omics to reveal high-dimensional biology’, 2021.
- 13 Dr. Alok Kumar Hazra 5th A lecture was delivered on 20th November 2020 at Webinar CME organized by Pashchim Banga Ayurved Chikitsak Samity entitled ‘Strategies on Drug Development from Indian Traditional System of Medicine’
- 14 Dr. Alok Kumar Hazra National A lecture was delivered on 12th December 2020 at Webinar on “Scientific Validation of Ayurvedic Principles and Practices” organized by Viswa Ayurved Parisad, West Bengal.
- 15 Dr Alok Kumar Hazra Analytical Webinar on ‘AYUSH Regulation and Herbal Testing’ on 14th August 2020 organized by Perkin Elmer Inc.
- 16 Prof. Tapash Dasgupta Attended and delivered lecture in the online National

- webinar entitled “Breeding of Oilseeds: A Challenge for Self-Sufficiency” organised by Bihar Agricultural University Sabour, Bhagalpur-813210 (Bihar), dated 29th July, 2020.
- 17 Dr. Ashutosh Sawarkar of Attended online National webinar entitled “Breeding Oilseeds: A Challenge for Self-Sufficiency” organised by Bihar Agricultural University Sabour, Bhagalpur-813210 (Bihar), dated 29th July, 2020.
- 18 Dr. Sanchayeeta Misra by UGC Participated a Faculty Induction Program organized Human Resource Development Centre, Jadavpur University from 22nd February 2021 to 27th March, 2021
- 19 Dr. Rupak Goswami Participated as an invited speaker in the National Workshop titled “Psychometric Scale Construction Techniques: Basics to Advances” organised by the National Dairy Research Institute, Karnal during 22-26 November 2020.
- 20 Dr. Rupak Goswami Invited lecture titled “Areas and Scope of Fulbright Scholarship for the Agriculture and Allied Sciences” for the graduate students and faculty members of West Bengal University of Animal and Fishery Sciences on 27 May 2020.

DETAILS OF SPECIAL LECTURES / WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS HOSTED / ORGANISED DURING THE YEAR

I. One Day Webinar on ‘Proteomics in our daily life: from Agriculture to Health’ was organized on March 18, 2021 to celebrate the National Proteomics Day in collaboration with Proteomics Society, India.

S. No.	Name of the Speaker and Affiliation	Title of the Talk
1	Prof. Niranjana Chakraborty Former Director, National Institute of Plant Genome Research	Understanding mitochondrial proteome dynamics and defense response: Turning knowledge into application

- | | | |
|---|---|---|
| 2 | Prof Shantanu Sengupta
Principal Scientist, CSIR-Institute of Genomics and Integrative Biology | Clinical proteomics for disease diagnosis and prognosis |
| 3 | Prof Arun Bandyopadhyay
Director, CSIR-Indian Institute of Chemical Biology | Proteomic analysis for understanding pathophysiology of coronary artery disease |

II. The IRDM Faculty Centre (Agricultural and Medical Biotechnology Division) have been successfully organizing monthly colloquium talk on any Saturday of the month. This lecture series are designed to motivate our students for higher studies and research. It may further help RKMVERI to become visible pan India among the Research Institute and University faculty.

S. No.	Name of the Speaker and Affiliation	Date and Venue	Title of the Talk
1	Dr. Mainak Sengupta Head, Department of Genetics, University of Calcutta	05 December, 2020 (Online)	To smoke or not to smoke: A genetic resolution to the dilemma
2	Dr. Amit Ghosh Former Director, CSIR-Institute of Microbial Technology	16 January, 2021 (Online)	Creativity and life in science
3	Dr. Chandrima Das Associate Professor, DAE-Saha Institute of Nuclear Physics	13 February, 2021 (Online)	Mechanism of stress adaptation by the histone readers: Implications in human diseases
4	Dr. Arindam Maitra Associate Professor, National Institute of Biomedical Genomics	9 February & 15 February, 2021 (Online)	Special Lecture Series on 'Next-Generation Sequencing' for the third semester students of MSc in Agricultural Biotechnology

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

S. No.	Name of the Investigator	Sanctioned/ Submitted	Project Title
1	Dr Alok Kumar Hazra	Sanctioned (63.09 lakhs)	Development of Potential AChE- Inhibitors from North-East Indian Plants: Activity Guided Isolation,

	(in collaboration with North-Eastern Hill University)		Purification and Validation using transgene-AD mouse; <u>DBT (Govt. of India)</u>
2	Dr Alok Kumar Hazra	Sanctioned (30 lakhs)	Establishment of Quality Testing Laboratory; <u>West Bengal State Medicinal Plant Board (Govt. of West Bengal)</u>
3	Prof Subrata Banerjee (Programme Co-ordinator) <u>Group Leaders:</u> Dr Gautam Chatterjee Dr Kunal Sikder	Submitted (500 lakhs)	DBT-BUILDER-University of RKMVERI- Interdisciplinary Life Sciences Programme for Advance Research and Education; <u>DBT (Govt. of India)</u>
4	Dr Gautam Chatterjee (PI)	Sanctioned (38.0 lakh, later)	Network Project on Organic Farming, (Dr. Gautam Chatterjee acted as PI), Funding Agency: Indian Council of Agricultural Research, Duration - 2015 till date (Long term project)
5	Dr Gautam Chatterjee (PI)	Sanctioned (40.49 Lakh)	Structure-function analysis of the centromeres and its associated centromeric protein CENP-A of the human pathogenic <i>Candida parapsilosissensulato</i> species complex, Duration - 2016-19 (extended till December, 2020)
6	Dr Gautam Chatterjee (in collaboration with ICAR-CRIJAF, ICAR-NRRI and ICAR-IGFRI)	Submitted (325 lakhs)	HaploGen: Accelerated haploid and doubled haploid plant generation through edited novel genes in food, fibre and forage crops; <u>ICAR (Govt. of India)</u>
5	Dr Kunal Sikder	Submitted (22 lakhs)	Detection of cardiac autoantibodies (CAAs) as markers of duration and severity of cardiac damage in idiopathic

			dilated cardiomyopathy (IDCM) patients of West Bengal; <i><u>DST-SERB (Govt. of India)</u></i>
7	Dr Kunal Sikder	Submitted (16 lakhs)	Impact of Vitamin D receptor (VDR) polymorphisms (Fok1, Taq1, Bsm1, Apa1) in complications and severity of diabetic retinopathy (DRP) in patients of West Bengal; <i><u>WB-DST (Govt. of West Bengal)</u></i>
8	Dr Rupak Goswami	Sanctioned (Non-endowed)	(Collaborator) (2018-2020 & 2021-2024). Cropping systems intensification in the salt affected coastal zones of Bangladesh and West Bengal, India (CSI4CZ). Australian Centre for International Agricultural research.
9	Dr Rupak Goswami	Sanctioned (Non-endowed)	(Co-PI) (2021-2023). Assessing the Contribution of Capacity Building Programs of the KVKs to Increase Livestock Production and Farmers' Income in Eastern India. ICAR-Agricultural Technology Application and Research Institute, Kolkata
10	Dr Rupak Goswami	Sanctioned (Non-endowed)	(Co-PI) (2021-2023). Network project on analysis of agricultural programmes conducted in Aspirational Districts in India. ICAR-Agricultural Technology Application and Research Institute, Kolkata
11	Dr. Pranab Kumar Nag acted (PI)	Sanctioned	Fostering Network in Education, Research & Innovation in Environmental & Occupational Health, Funding Agency: European Commission, Duration: 2016-2019 extended upto April, 2021

12	Dr. Pranab Kumar Nag acted (PI)	Sanctioned (69.42 Lakh)	Human surface thermographic profiling as indicator of climate susceptibility and impact mitigation using social networking, (Dr. Pranab Kumar Nag acted as a PI), Funding Agency: DST, Govt. of India, Duration - 2017-20 extended upto 2021
13	Prof. Tapash Dasgupta (PI)	Sanctioned (84.0 lakh)	Developing Multi-stress Tolerant High Yielding Breeding Materials in Rice and Indian Mustard through Modern Breeding Program, (Dr. Tapash Dasgupta acted as a PI and Dr. Ashutosh Sawarkar, CO PI), Funding Agency: Dept. of Agriculture, Govt. of West Bengal, Duration - 2019-2022
14	Prof. Tapash Dasgupta (PI)	Sanctioned (59,255/-)	All India Coordinated Maize Improvement Project (Voluntary Centre)

MISCELLANEOUS INFORMATION

➤ Academic awards and Scholarships details

<i>S. No.</i>	<i>Name of the Student</i>	<i>Academic Awards/ Scholarships details</i>
1	Jisan Sarwan	Qualified CSIR-JRF
2	Amitesh Bhattacharyya	Qualified ICAR-NET
3	Atanu Mondal	Qualified CSIR-NET/SET/GATE/TIFR
4	Shilpi Laha	Qualified CSIR-JRF/DBT-JRF
5	Samhita Chakraborty	Qualified GATE
6	Sayani Bandyopadhyay	Qualified GATE
7	Mondira Banerjee	Qualified GATE
8	Shrestha Pattanayak	Qualified GATE
9	Debottam Majumdar	Qualified GATE
10	Supreeta Das	Best Post Graduate Thesis Award on the occasion of

	National Webinar on Farm, Food and Farmer (December 24-25, 2020) organized by Samagra Vikas Welfare Society (SVWS)
11 Shibasis Mukherjee	ICAR-SRF (Project)
12 Argha Chakraborty	Qualified GATE/ICAR-YP-I (Project)
13 Adrija Banerjee	Non-NET SVMCM PhD Fellowship
14 Rantim Bhattacharjee	DBT-JRF (Project)
15 Akash Kumar Haldar	CSIR-JRF
16 Debdatta Talukdar	Qualified UGC-JRF
17 Soumyajyoti Ghosal	DST-INSPIRE-JRF
18 Aiswarya Bhattacharjee Child-	PG Indira Gandhi Scholarship for Single Girl Application Final Verified By the Ministry
19 Niharika Das Child-	PG Indira Gandhi Scholarship for Single Girl Application Final Verified By the Ministry
20 Pritha Bhuniya Child-	PG Indira Gandhi Scholarship for Single Girl Application Final Verified By the Ministry
21 Tanusree Jana Child-	PG Indira Gandhi Scholarship for Single Girl Application Final Verified By the Ministry
22 Dipsikha Seth	SVMCM Scholarship– Kanyashree (K3)
23 Titiryu Chakraborty	SVMCM Scholarship– Renewal
24 Ankita Shome	SVMCM Scholarship– Renewal
25 Mousam Haldar	SVMCM Scholarship– Renewal
26 Subhojit Ghosh	SVMCM Scholarship– Renewal
27 Rama Rani Samanta	SVMCM Scholarship– Renewal
28 Aiswarya Bhattacharjee	SVMCM Scholarship– Renewal
29 Prakriti Sundar Samanta	SVMCM Scholarship– Renewal
30 Pritam Banerjee	SVMCM Scholarship– Renewal

31 Agniv Chakraborty	SVMCM Scholarship– Renewal
32 Nilanjan De	SVMCM Scholarship– Renewal
33 Debarghya Chakraborty	SVMCM Scholarship– Renewal
34 Kalyan Roy	Qualified UGC-JRF
35 Anupam Biswas	SVMCM Scholarship– Renewal
36 Ananya Dey Child-	PG Indira Gandhi Scholarship for Single Girl Renewal
37 Bidisha Bhattacharjee Scholarship for	Kanyashree (K3) + PG Indira Gandhi Single Girl Child- Renewal
38 Anirban Kundu	SVMCM Scholarship– Renewal
39 Arnab Banerjee	SVMCM Scholarship– Renewal
40 Suvangini DasKanyashree	Kanyashree (K3) – Renewal
41 Pritam Majumder	SVMCM Scholarship– Renewal
42 Shreya Das	SVMCM Scholarship– Renewal
43 Arun Maity SC/ST/OBC,	State - CS Post Matric Scholarship to Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
44 Sangita Sinha Scholarship	Kanyashree (K3) + State - CS Post Matric to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
45 Niloy Biswas Post	SVMCM Scholarship– Renewal + State - CS Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
46 Avijit Das SC/ST/OBC,	State - CS Post Matric Scholarship to

47 Payel Das Scholarship	Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal Kanyashree (K3) + State - CS Post Matric to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
48 Abhishek Das	SVMCM Scholarship– Renewal
49 Rahidul Islam Khan Renewal	OASIS Scholarship, Govt. of West Bengal –
50 Jayatri Basu	Kanyashree (K3) – Renewal
51 Priyanka Mandal Scholarship	Kanyashree (K3) + State - CS Post Matric to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
52 Mira Mahato Scholarship	Kanyashree (K3) + State - CS Post Matric to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) - Renewal
53 Poulomee Bose Gandhi	SVMCM Scholarship – Renewal + PG Indira Scholarship for Single Girl Child- Renewal
54 Suparna Banerjee Year)	SVMCM Scholarship – Amount received (1st
55 Angana Pal Gandhi	SVMCM Scholarship– Renewal + PG Indira Scholarship for Single Girl Child- Renewal
56 Kriva Bhattacharya Child-	PG Indira Gandhi Scholarship for Single Girl Renewal
57 Annyesha Purkait Child-	PG Indira Gandhi Scholarship for Single Girl Renewal

58 Nisha Dasgupta Child-	PG Indira Gandhi Scholarship for Single Girl Renewal
59 Arunima Kapas Child-	PG Indira Gandhi Scholarship for Single Girl Renewal
60 Angana Pal Child-	PG Indira Gandhi Scholarship for Single Girl Renewal
61 Debasmita Roy	SVMCM Scholarship– Renewal
62 Anirneeta De	Non-NET SVMCM Ph. D. Fellowship
63 Shyam Chandra Ghosh	Non-NET SVMCM Ph. D. Fellowship
64 Mahadev Bera	Non-NET SVMCM Ph. D. Fellowship
65 Subhajit Banerjee	SVMCM Scholarship – Application approved
66 Sayan Chakraborty	SVMCM Scholarship – Application approved
67 Sayani Adhikary Indira	Kanyashree (K3) - Application approved + PG Gandhi Scholarship for Single Girl Child - Application approved
68 Anamika Dutta	SVMCM Scholarship – Application approved
69 Rinika Halder approved	SVMCM Scholarship – Application
70 Deep Banerjee	SVMCM Scholarship – Application approved
71 Prakash Manna	SVMCM Scholarship – Application approved
72 Ganesh Mondal	SVMCM Scholarship – Amount received
73 Basabdutta Pradhan Indira	SVMCM Scholarship – Amount received + PG Gandhi Scholarship for Single Girl Child- Application Final Verified By the Ministry
74 Aditi Mondal Child-	PG Indira Gandhi Scholarship for Single Girl Application Final Verified By the Ministry

75 Bani Talukder	Kanyashree (K3) - Application approved
76 Diksha Kar	SVMCM Scholarship – Application approved
77 Moumita Ghosh	Kanyashree (K3) - Application approved
78 Sk Sahil Saklin	Aikyashree – Pending
79 Soumyajit Chakraborty	SVMCM Scholarship – Amount received
80 Susmita Dey Indira	Kanyashree (K3) - Application approved + PG Gandhi Scholarship for Single Girl Child- Application Final Verified By the Ministry
81 Md Mesbahur Rahaman beyond	HDFC Bank Paribartan’s ECS Scholarship School Programme - Application approved

- Rupak Goswami is acting as a Host Faculty of the UC-Davis Global Fellowship in Agricultural Development (GFAD) (2019-2021). Graduate student hosting from the University of California System. [two cycles completed]
- An Approval for carrying out tests or analysis on Ayurvedic, Siddha and Unani drugs or raw materials used in the manufacture thereof on behalf of licensees for manufacture for sale of Ayurvedic, Siddha and Unani drugs has been granted by ISM drugs Control for Quality Testing Laboratory. The Approval No. is QC-004-DTL dated 25.01.2021. The Approval shall force from 25.01.2021 to 24.01.2024.
- Since most of the students of IRDM Faculty Centre of Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI) belong to rural parts of West Bengal, they were voluntarily decided to stand beside the needy people and help them during this emergency situation. Keeping in this mind they discussed with the faculty on how we can assist the poor people in this emergency crisis. After detailed discussion with students, one final strategy has been adopted by the faculty to render the services to the economically backward communities who have been suffering the most due to the pandemic effect of COVID-19. During May – July, 2020, as a response to this novel work, the students and staff of IRDM Faculty Centre has been reached to approximately 1000 families through their collaborative network at twelve districts of West Bengal and provided them basic requirements like rice, potato, lentil, mustard

oil, dettol shop, sanitary napkin etc. for one week. For this we have spent around 1.58 lakh rupees.

- As per the direction of the University Grants Commission (UGC) and instructed by then Vice Chancellor of RKMVERI, Revered Swami Atmapriyananda Ji Maharaj; IRDM Faculty Centre of Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI) conducted a online survey on COVID-19 entitled “**Survey on people’s Awareness, Crises, and Adaptation during the lockdown period caused by Novel Corona Virus (COVID-19)**” between 20-24 June, 2020. For conducting this survey, one online questionnaire was created through Google form and it was circulated among the students of IRDM by instructing that to collect the data from neighbours/people residing nearby places of your house. Data have been collected from different sections of the society irrespective of their caste, creed, religion or occupation. Structure questionnaire was followed for this survey and respondents were recorded through telephonic interview or online submission of Google forms. Total 587 respondents were recorded from different parts of West Bengal. People responded from 125 Blocks of 21 Districts of West Bengal viz. Darjeeling, Jalpaigudi, Alipurduar, Cooch Behar, North Dinajpur, South Dinajpur, Maldah, Murshidabad, Nadia, Bardhaman East, Bardhaman West, Puruliya, Bankura, East Midnapure, West Midnapure, Jhargram, North 24 Parganas, South 24 Parganas, Howrah, Hoogly and Kolkata.
- LokasikshaParisad is going to start their food processing unit at IRDM Faculty Centre in collaboration with Post-Harvest and Food Technology Department.

FACULTY OF INTEGRATED RURAL DEVELOPMENT AND MANAGEMENT

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Dr. Tapash Dasgupta Dean	IRDM Faculty Centre
2	Dr. Ashutosh Sawarkar Breeding	Assistant Professor, Genetics and Plant
3	Dr. Atul Pradhan* Breeding	Post Doctoral Fellow, Genetics and Plant
4	Dr. Pranab Kumar Nag Mangement	Professor, Environment and Disaster
5	Dr. Jhilly Dasgupta*	Teaching Cum Research Assistant, EDM
5	Dr. Rupak Goswami Dev.	Associate Professor, Agriculture and Rural
6	Dr. Sanchayeeta Misra Dev.	Assistant Professor, Agriculture and Rural
7	Mr. Supriya Ghorui*	Teaching Assistant cum Field Organizer, ARD
8	Mr. Hiratan Dey*	Teaching Assistant cum Field Organizer, ARD
9	Dr. Kalyan Ganguly	Professor (Hon.), Agricultural Biotechnology
10	Dr. Amitava Chatterjee Biotechnology	Emiratus Professor, Agricultural
11	Dr. Dinendra Ray Choudhury	Professor (Hon.), Agricultural Biotechnology
12	Dr. Gautam Chatterjee # Biotechnology	Assistant Professor, Agricultural
13	Dr. Kishor Kumar # Biotechnology	Assistant Professor, Agricultural
14	Dr. Alok Kumar Hazra	Scientist, Quality Testing Laboratory (Ayush)
15	Dr. Syandan Sinha Ray*	Teaching Cum Laboratory Assistant, AgBt
16	Dr. Kunal Ray Professor	Medical Biotechnology
17	Dr. Subrata Banerjee	Professor, Medical Biotechnology
18	Dr. Rukhsana Chowdhury	Professor, Medical Biotechnology
19	Dr. Debasis Bandyopadhyay	Professor, Medical Biotechnology
20	Dr. Kunal Sikder##	Professor, Medical Biotechnology

21 Dr. Debapriya Ghosh* Teaching and Research Associate, Medical Bio
tch

22 Dr. Saran Chattopadhyaya* Post Doctoral Fellow, Medical Biotechnology

Joint affiliation to Division of Agricultural Biotechnology and School of Medical
Biotechnology

Joint affiliation to School of Medical Biotechnology and School of Sport Sciences and
Yoga

* Teaching Assistant cum Field Organizer/Teaching Assistant cum Laboratory Assistant
/ Teaching cum Research Associate/Teaching cum Research Assistant/ Post-
DoctoralFellow

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. in Agricultural Biotechnology (AgBT)	14
2	M. Sc. in Medical Biotechnology (MBT)	13
3	M. Sc. in Environment and Disaster Management (EDM)	10
4	M. Sc. in Agriculture and Rural Development (ARD)	25
5	M. Sc. (Ag) in Genetics and Plant Breeding (GPB)	11
6	PG Diploma in Post Harvest and Food Technology (PHFT)	11
7	PhD in Agricultural Biotechnology	1
8	PhD in Medical Biotechnology	3
9	PhD in Environment and Disaster Management	1
10	PhD in Agriculture and Rural Development	5

STUDENTS PASSED OUT DETAILS OF THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	M. Sc. in Agricultural Biotechnology (AgBT)	12
2	M. Sc. in Environment and Disaster Management (EDM)	9
3	M. Sc. in Agriculture and Rural Development (ARD)	24
4	M. Sc. (Ag) in Genetics and Plant Breeding (GPB)	3
5	PG Diploma in Post Harvest and Food Technology (PHFT)	7
6	Ph. D. in Agriculture and Rural Development	1

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

DETAILS OF STUDENTS PURSUING HIGHER EDUCATION:

<i>S. No.</i>	<i>Name of the student</i>	<i>Institution joined and course persuing</i>
1	Kalyan Roy	Ph. D. at the IRDM Faculty Centre, RKMVERI
2	Kaushik Mallick	Ph. D. at the IRDM Faculty Centre, RKMVERI
3	Atanu Mondal	Ph. D. at DAE-Saha Institute of Nuclear Physics
4	Jisan Sarwar	Ph. D. in Biotechnology at Jadavpur University
5	Sunayna Roy	Ph. D. at the IRDM Faculty Centre, RKMVERI

DETAILS OF STUDENTS PLACED:

<i>S. No.</i>	<i>Name of the student</i>	<i>Organisation / Company where placed</i>
1	Bappa Mridha Cooperative	Production Officer at Sundarban Milk Union Society (Govt. of West Bengal)
2	Anushree Mukherjee Society	Field Officer at Sundarban Milk Union Cooperative (Govt. of West Bengal)
3	Archita Sahu	Trainee at WBADMI Project
4	Sejuti Bhattacharjee	Project Associate at Shamahita Math, Bankura
5	Paramita Roy	Project Executive at RajarhatPrasari (A voluntary NGO)
6	Twinkle Mukherjee	Project Executive at RajarhatPrasari (A voluntary NGO)
7	Ritam Chakraborty	Project Executive at RajarhatPrasari (A voluntary NGO)
8	Samik Banerjee Magistrate	Project Associate at IIT, Kharagpur and District Office, Bankura (Collaborative Project)
9	Moitreyee Dey Magistrate	Project Associate at IIT, Kharagpur and District Office, Bankura (Collaborative Project)
10	Kuhelika Chakraborty	Project Associate at Uttaakhand Based NGO
11	Meghachhaya Misra	Consultant, Child in Need Institute (CINI)

12	Mukta Bhattacharyya Jharkhand	Field officer at 4'S under the aegis of UNICEF,
13	Diptayan Dass Voluntary NGO	Field officer at Pragya – An International
14	Diya Das	CINI-Tata Trust
15	Sudeshna Bhattacharyya	Shaw-Wales (An Agribased Company)
16	Uday Mondal	Trainee at Paustik Life (A Farmers Producer based Organization)
17	Supreeta Das	Production Specialist at Wipro Technologies

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

<i>S. No.</i>	<i>Name of the Scholar</i>	<i>Name of Supervisor</i>
1	Anirneeta De, GPB	Prof. Tapash Dasgupta
2	Shyam Ghosh, GPB	Prof. Tapash Dasgupta
3	Sangita Patra, ARD	Dr. Rupak Goswami
4	Kalyan Roy, ARD	Dr. Rupak Goswami
5	Kunal Singh, ARD	Dr. Rupak Goswami
6	Riya Bhattacharyya, ARD	Dr. Rupak Goswami
7	Poulomi Sen, ARD	Dr. Sanchayeeta Misra
8	Kaushik Mallick, ARD	Dr. Sanchayeeta Misra
9	Vibha Singh, AgBT	Dr. Md. Nasim Ali
10	Shibasis Mukherjee, AgBT	Dr. Gautam Chatterjee
11	Adrija Banerjee, AgBT	Dr Kishor Kumar
12	Argha Chakraborty, AgBT	Dr. Gautam Chatterjee
13	Rantim Bhattacharyya, AgBT	Dr. Alok Kumar Hazra
14	Akash Kumar Halder, MBT	Dr. Kunal Sikder
15	Debdatta Talukdar, MBT	Dr. Kunal Sikder
16	Soumyajyoti Ghosal, MBT	Dr. Arkadeb Dutta
17	Nitin Garewal, EDM	Prof. P.K. Nag
18	Sunayna Roy, EDM	Prof. P.K. Nag

GPB = Genetics and Plant Breeding

- ARD = Agriculture and Rural Development
 AgBT = Agricultural Biotechnology
 MBT = Medical Biotechnology
 EDM = Environment and Disaster Management

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

S. No.	Name of the Teaching Faculty	Title of the Publication/ Journal
1	Dr. Subrata Banerjee	miRNA 146b mediates the regulation of nucleolar size and activity in polyploidy megakaryocytes. <i>Biol. Cell</i>
2	Dr. Amitava Chatterjee	Effect of curcumin on Cell-ECM interaction in human breast cancer cells MDA-MB-231. <i>Biosc. Biotech. Res. Comm.</i>
3	Dr. Kunal Sikder	Reverse-Relative age effect on motor fitness of district level handball players of West Bengal in course of talent hunting. <i>European J Sports Exercise Science.</i>
4	Goswami, R., Roy, K., Dutta, S., Ray, K., Sarkar, S., Brahmachari, K., ... & Majumdar, K. (2021)	Multi-faceted impact and outcome of COVID-19 on smallholder agricultural systems: Integrating qualitative research and fuzzy cognitive mapping to explore resilient strategies. <i>Agricultural systems</i> , 189, 103051.
5	Goswami, R., & Roy, K. (2021)	Mental modelling for the researchers of extension science: A primer. In Maity et al. (Eds) <i>Psychometric Scale Construction Techniques: Basics to Advances</i> , (95-104) National Dairy Research Institute, Karnal. ISBN: 978-81-952712-0-7
6	Dutta, S., Chakraborty, S., Goswami, R., Banerjee, H., Majumdar, K., Li, B., & Jat, M. L. (2020).	Maize yield in smallholder agriculture system—An approach integrating socio-economic and crop management factors. <i>PloS one</i> , 15(2), e0229100.
7	Ray, K., Sen, P., Goswami, R., Sarkar, S., Brahmachari, K.,	Profitability, energetics and GHGs emission estimation from rice-based cropping systems in the

- Ghosh, A., & Mainuddin, M. (2020). coastal saline zone of West Bengal, India. *PloS one*, 15(5), e0233303.
- 8 Saha, S., & Goswami, R. (2020). Destinations of Male Outmigration and their Drivers in Indian Sundarbans. *Space and Culture, India*, 8(1), 111-142.
- 9 Goswami, R., Brodt, S., Patra, S., Dasgupta, P., Mukherjee, B., & Nandi, S. (2020) Resource Interaction in Smallholder Farms is Linked to Farm Sustainability: Evidence from Indian Sundarbans. (Preprint) doi: 10.20944/preprints202012.0311.v1
- 10 Dey A, Hazra AK, Mukherjee A, Nandy S, Pandey DK Chemotaxonomy of the ethnic antidote *Aristolochia indica* for aristolochic acid content: Implications of anti-phospholipase activity and genotoxicity study, *Journal of Ethnopharmacology*, 266 (2021) 113416, <https://doi.org/10.1016/j.jep.2020.113416>
- 11 Dey A, Hazra AK, Nandy S, Kaur P, Pandey DK. Selection of elite germplasms for industrially viable medicinal crop *Bacopamonnieri* for bacoside A production: An HPTLC-coupled chemotaxonomic study. *Industrial Crops & Products*, 158 (2020) 112975. <https://doi.org/10.1016/j.indcrop.2020.112975>.
- 12 Bhattacharyya S, Kumar R, Sengupta G, Hazra AK, Sur TK Chlorogenic Acid Enriched Green Coffee Ameliorated Renal Injury in Rats. *Mymensingh Med J*, (2020) 29: 991-1000.
- 13 Nandy S., Hazra A.K., Pandey D.K., Ray P., Dey A. Elicitation of industrially promising vanillin type aromatic compound 2-hydroxy 4-methoxy benzaldehyde (MBALD) yield in the in-vitro raised medicinal crop *Hemidesmus indicus* (L) R. Br. by methyl jasmonate and salicylic acid, *Industrial Crops & Products*, 164 (2021) 113375. <https://doi.org/10.1016/j.indcrop.2021.113375>

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

<i>S. No.</i>	<i>Name of the Teaching Faculty</i>	<i>Details</i>
1	Dr. Gautam Chatterjee	Attended DST-SERB sponsored One-day Workshop

		on 'Hands-on Learning with Basic Bioinformatics for Beginners' at ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), Barrackpore, India, 2020.
2 XV	Dr. Gautam Chatterjee	Attended and delivered an invited talk at the Annual Group Meeting of All India Network Project on Organic Farming (AI-NPOF) via video conferencing mode (virtual), 2020.
3	Dr. Gautam Chatterjee on	Participated as a Resource person to deliver a lecture 'Emerging Role of Centromeres in Genome Evolution to Chromosome Manipulation' in the ICAR sponsored Training Programme at ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), 2020.
4	Dr. Gautam Chatterjee Programme	Attended one-month 2nd Faculty Induction organized by UGC-HRDC, Jadavpur University, 2021.
5	Dr. Gautam Chatterjee	Attended one-week Workshop on MOOCS, E-content Development and Open Educational Resources organized by UGC-HRDC, University of North Bengal, 2021.
6	Dr. Syandan Sinha Ray Molecular	Attended one-week Hands on Workshop on Biology Techniques organized by Department of Botany, The University of Calcutta, 2021.
7	Dr. Syandan Sinha Ray on	Attended DST-SERB sponsored One-day Workshop 'Hands-on Learning with Basic Bioinformatics for Beginners' at ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), Barrackpore, India, 2020.
8	Dr. Kunal Sikder health	Attended webinar on 'Impact of COVID-19 on human health'

- and society” organized by National Academy of Sciences (NASI) Kolkata chapter as a part of the ‘JAGRUKTA ANDOLAN’, 2020.
- 9 Dr. Kunal Sikder Science’ Attended one-day symposium on ‘Advancement of Science’ by New Jersey Academy of Science, USA, 2020.
- 10 Dr. Saran Chattopadhyaya analysis Attended one-day webinar on ‘The importance of of the tumor microenvironment in cancer immunity’, 2021.
- 11 Dr. Saran Chattopadhyaya Cytometry and Attended one-day webinar on ‘Imaging Flow Chromosomal Analysis of Blood Cancers’, 2021.
- 12 Dr. Saran Chattopadhyaya cytometry Attended one-day webinar on ‘Integrating flow and single-cell multi-omics to reveal high-dimensional biology’, 2021.
- 13 Dr. Alok Kumar Hazra 5th A lecture was delivered on 20th November 2020 at Webinar CME organized by Pashchim Banga Ayurved Chikitsak Samity entitled ‘Strategies on Drug Development from Indian Traditional System of Medicine’
- 14 Dr. Alok Kumar Hazra National A lecture was delivered on 12th December 2020 at Webinar on “Scientific Validation of Ayurvedic Principles and Practices” organized by Viswa Ayurved Parisad, West Bengal.
- 15 Dr Alok Kumar Hazra Analytical Webinar on ‘AYUSH Regulation and Herbal Testing’ on 14th August 2020 organized by Perkin Elmer Inc.
- 16 Prof. Tapash Dasgupta Attended and delivered lecture in the online National

- webinar entitled “Breeding of Oilseeds: A Challenge for Self-Sufficiency” organised by Bihar Agricultural University Sabour, Bhagalpur-813210 (Bihar), dated 29th July, 2020.
- 17 Dr. Ashutosh Sawarkar of Attended online National webinar entitled “Breeding Oilseeds: A Challenge for Self-Sufficiency” organised by Bihar Agricultural University Sabour, Bhagalpur-813210 (Bihar), dated 29th July, 2020.
- 18 Dr. Sanchayeeta Misra by UGC Participated a Faculty Induction Program organized Human Resource Development Centre, Jadavpur University from 22nd February 2021 to 27th March, 2021
- 19 Dr. Rupak Goswami Participated as an invited speaker in the National Workshop titled “Psychometric Scale Construction Techniques: Basics to Advances” organised by the National Dairy Research Institute, Karnal during 22-26 November 2020.
- 20 Dr. Rupak Goswami Invited lecture titled “Areas and Scope of Fulbright Scholarship for the Agriculture and Allied Sciences” for the graduate students and faculty members of West Bengal University of Animal and Fishery Sciences on 27 May 2020.

DETAILS OF SPECIAL LECTURES / WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS HOSTED / ORGANISED DURING THE YEAR

I. One Day Webinar on ‘Proteomics in our daily life: from Agriculture to Health’ was organized on March 18, 2021 to celebrate the National Proteomics Day in collaboration with Proteomics Society, India.

S. No.	Name of the Speaker and Affiliation	Title of the Talk
1	Prof. Niranjan Chakraborty Former Director, National Institute of Plant Genome Research	Understanding mitochondrial proteome dynamics and defense response: Turning knowledge into application

- | | | |
|---|---|---|
| 2 | Prof Shantanu Sengupta
Principal Scientist, CSIR-Institute of Genomics and Integrative Biology | Clinical proteomics for disease diagnosis and prognosis |
| 3 | Prof Arun Bandyopadhyay
Director, CSIR-Indian Institute of Chemical Biology | Proteomic analysis for understanding pathophysiology of coronary artery disease |

II. The IRDM Faculty Centre (Agricultural and Medical Biotechnology Division) have been successfully organizing monthly colloquium talk on any Saturday of the month. This lecture series are designed to motivate our students for higher studies and research. It may further help RKMVERI to become visible pan India among the Research Institute and University faculty.

S. No.	Name of the Speaker and Affiliation	Date and Venue	Title of the Talk
1	Dr. Mainak Sengupta Head, Department of Genetics, University of Calcutta	05 December, 2020 (Online)	To smoke or not to smoke: A genetic resolution to the dilemma
2	Dr. Amit Ghosh Former Director, CSIR-Institute of Microbial Technology	16 January, 2021 (Online)	Creativity and life in science
3	Dr. Chandrima Das Associate Professor, DAE-Saha Institute of Nuclear Physics	13 February, 2021 (Online)	Mechanism of stress adaptation by the histone readers: Implications in human diseases
4	Dr. Arindam Maitra Associate Professor, National Institute of Biomedical Genomics	9 February & 15 February, 2021 (Online)	Special Lecture Series on 'Next-Generation Sequencing' for the third semester students of MSc in Agricultural Biotechnology

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

S. No.	Name of the Investigator	Sanctioned/ Submitted	Project Title
1	Dr Alok Kumar Hazra	Sanctioned (63.09 lakhs)	Development of Potential AChE- Inhibitors from North-East Indian Plants: Activity Guided Isolation,

	(in collaboration with North-Eastern Hill University)		Purification and Validation using transgene-AD mouse; <u>DBT (Govt. of India)</u>
2	Dr Alok Kumar Hazra	Sanctioned (30 lakhs)	Establishment of Quality Testing Laboratory; <u>West Bengal State Medicinal Plant Board (Govt. of West Bengal)</u>
3	Prof Subrata Banerjee (Programme Co-ordinator) <u>Group Leaders:</u> Dr Gautam Chatterjee Dr Kunal Sikder	Submitted (500 lakhs)	DBT-BUILDER-University of RKMVERI-Interdisciplinary Life Sciences Programme for Advance Research and Education; <u>DBT (Govt. of India)</u>
4	Dr Gautam Chatterjee (PI)	Sanctioned (38.0 lakh, later)	Network Project on Organic Farming, (Dr. Gautam Chatterjee acted as PI), Funding Agency: Indian Council of Agricultural Research, Duration - 2015 till date (Long term project)
5	Dr Gautam Chatterjee (PI)	Sanctioned (40.49 Lakh)	Structure-function analysis of the centromeres and its associated centromeric protein CENP-A of the human pathogenic <i>Candida parapsilosissensulato</i> species complex, Duration - 2016-19 (extended till December, 2020)
6	Dr Gautam Chatterjee (in collaboration with ICAR-CRIJAF, ICAR-NRRI and ICAR-IGFRI)	Submitted (325 lakhs)	HaploGen: Accelerated haploid and doubled haploid plant generation through edited novel genes in food, fibre and forage crops; <u>ICAR (Govt. of India)</u>
5	Dr Kunal Sikder	Submitted (22 lakhs)	Detection of cardiac autoantibodies (CAAs) as markers of duration and severity of cardiac damage in idiopathic

			dilated cardiomyopathy (IDCM) patients of West Bengal; <i>DST-SERB (Govt. of India)</i>
7	Dr Kunal Sikder	Submitted (16 lakhs)	Impact of Vitamin D receptor (VDR) polymorphisms (Fok1, Taq1, Bsm1, Apa1) in complications and severity of diabetic retinopathy (DRP) in patients of West Bengal; <i>WB-DST (Govt. of West Bengal)</i>
8	Dr Rupak Goswami	Sanctioned (Non-endowed)	(Collaborator) (2018-2020 & 2021-2024). Cropping systems intensification in the salt affected coastal zones of Bangladesh and West Bengal, India (CSI4CZ). Australian Centre for International Agricultural research.
9	Dr Rupak Goswami	Sanctioned (Non-endowed)	(Co-PI) (2021-2023). Assessing the Contribution of Capacity Building Programs of the KVKs to Increase Livestock Production and Farmers' Income in Eastern India. ICAR-Agricultural Technology Application and Research Institute, Kolkata
10	Dr Rupak Goswami	Sanctioned (Non-endowed)	(Co-PI) (2021-2023). Network project on analysis of agricultural programmes conducted in Aspirational Districts in India. ICAR-Agricultural Technology Application and Research Institute, Kolkata
11	Dr. Pranab Kumar Nag acted (PI)	Sanctioned	Fostering Network in Education, Research & Innovation in Environmental & Occupational Health, Funding Agency: European Commission, Duration: 2016-2019 extended upto April, 2021

12	Dr. Pranab Kumar Nag acted (PI)	Sanctioned (69.42 Lakh)	Human surface thermographic profiling as indicator of climate susceptibility and impact mitigation using social networking, (Dr. Pranab Kumar Nag acted as a PI), Funding Agency: DST, Govt. of India, Duration - 2017-20 extended upto 2021
13	Prof. Tapash Dasgupta (PI)	Sanctioned (84.0 lakh)	Developing Multi-stress Tolerant High Yielding Breeding Materials in Rice and Indian Mustard through Modern Breeding Program, (Dr. Tapash Dasgupta acted as a PI and Dr. Ashutosh Sawarkar, CO PI), Funding Agency: Dept. of Agriculture, Govt. of West Bengal, Duration - 2019-2022
14	Prof. Tapash Dasgupta (PI)	Sanctioned (59,255/-)	All India Coordinated Maize Improvement Project (Voluntary Centre)

MISCELLANEOUS INFORMATION

➤ Academic awards and Scholarships details

<i>S. No.</i>	<i>Name of the Student</i>	<i>Academic Awards/ Scholarships details</i>
1	Jisan Sarwan	Qualified CSIR-JRF
2	Amitesh Bhattacharyya	Qualified ICAR-NET
3	Atanu Mondal	Qualified CSIR-NET/SET/GATE/TIFR
4	Shilpi Laha	Qualified CSIR-JRF/DBT-JRF
5	Samhita Chakraborty	Qualified GATE
6	Sayani Bandyopadhyay	Qualified GATE
7	Mondira Banerjee	Qualified GATE
8	Shrestha Pattanayak	Qualified GATE
9	Debottam Majumdar	Qualified GATE
10	Supreeta Das	Best Post Graduate Thesis Award on the

	occasion of National Webinar on Farm, Food and Farmer (December 24-25, 2020) organized by Samagra Vikas Welfare Society
11 Shibasis Mukherjee	ICAR-SRF (Project)
12 Argha Chakraborty	Qualified GATE/ICAR-YP-I (Project)
13 Adrija Banerjee	Non-NET SVMCM PhD Fellowship
14 Rantim Bhattacharjee	DBT-JRF (Project)
15 Akash Kumar Halder	CSIR-JRF
16 Debdatta Talukdar	Qualified UGC-JRF
17 Soumyajyoti Ghosal	DST-INSPIRE-JRF
18 Aiswarya Bhattacharjee	PG Indira Gandhi Scholarship for Single Girl Child- Application Verified By the Ministry
19 Niharika Das	PG Indira Gandhi Scholarship for Single Girl Child- Application Verified By the Ministry
20 Pritha Bhuniya	PG Indira Gandhi Scholarship for Single Girl Child- Application Verified By the Ministry
21 Tanusree Jana	PG Indira Gandhi Scholarship for Single Girl Child- Application Verified By the Ministry
22 Dipsikha Seth	SVMCM Scholarship– Kanyashree (K3)
23 Titiryu Chakraborty	SVMCM Scholarship– Renewal
24 Ankita Shome	SVMCM Scholarship– Renewal
25 Mousam Halder	SVMCM Scholarship– Renewal
26 Subhojit Ghosh	SVMCM Scholarship– Renewal
27 Rama Rani Samanta	SVMCM Scholarship– Renewal
28 Aiswarya Bhattacharjee	SVMCM Scholarship– Renewal
29 Prakriti Sundar Samanta	SVMCM Scholarship– Renewal
30 Pritam Banerjee	SVMCM Scholarship– Renewal
31 Agniv Chakraborty	SVMCM Scholarship– Renewal
32 Nilanjan De	SVMCM Scholarship– Renewal
33 Debarghya Chakraborty	SVMCM Scholarship– Renewal

34 Kalyan Roy	Qualified UGC-JRF
35 Anupam Biswas	SVMCM Scholarship– Renewal
36 Ananya Dey	PG Indira Gandhi Scholarship for Single Girl Child- Renewal
37 Bidisha Bhattacharjee	Kanyashree (K3) + PG Indira Gandhi Scholarship for Single Girl Child- Renewal
38 Anirban Kundu	SVMCM Scholarship– Renewal
39 Arnab Banerjee	SVMCM Scholarship– Renewal
40 Suvangini DasKanyashree	Kanyashree (K3) – Renewal
41 Pritam Majumder	SVMCM Scholarship– Renewal
42 Shreya Das	SVMCM Scholarship– Renewal
43 Arun Maity	State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
44 Sangita Sinha	Kanyashree (K3) + State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
45 Niloy Biswas	SVMCM Scholarship– Renewal + State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
46 Avijit Das	State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
47 Payel Das	Kanyashree (K3) + State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
48 Abhishek Das	SVMCM Scholarship– Renewal
49 Rahidul Islam Khan	OASIS Scholarship, Govt. of West Bengal –

	Renewal 50 Jayatri Basu Kanyashree (K3) – Renewal
51 Priyanka Mandal	Kanyashree (K3) + State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) – Renewal
52 Mira Mahato	Kanyashree (K3) + State - CS Post Matric Scholarship to SC/ST/OBC, Govt. of West Bengal (OASIS Scholarship, Govt. of West Bengal) - Renewal
53 Poulomee Bose	SVMCM Scholarship – Renewal + PG Indira Gandhi Scholarship for Single Girl Child- Renewal
54 Suparna Banerjee	SVMCM Scholarship
55 Angana Pal	SVMCM Scholarship– Renewal + PG Indira Gandhi Scholarship for Single Girl Child- Renewal
56 Kriva Bhattacharya	PG Indira Gandhi Scholarship for Single Girl Child- Renewal
57 Annyesha Purkait	PG Indira Gandhi Scholarship for Single Girl Child- Renewal
58 Nisha Dasgupta	PG Indira Gandhi Scholarship for Single Girl Child- Renewal
59 Arunima Kapas	PG Indira Gandhi Scholarship for Single Girl Child- Renewal
60 Angana Pal	PG Indira Gandhi Scholarship for Single Girl Child- Renewal
61 Debasmita Roy	SVMCM Scholarship– Renewal
62 Anirneeta De	Non-NET SVMCM Ph. D. Fellowship
63 Shyam Chandra Ghosh	Non-NET SVMCM Ph. D. Fellowship
64 Mahadev Bera	Non-NET SVMCM Ph. D. Fellowship

65 Subhajit Banerjee	SVMCM Scholarship – Application approved
66 Sayan Chakraborty	SVMCM Scholarship – Application approved
67 Sayani Adhikary	Kanyashree (K3) - Application approved + PG Indira Gandhi Scholarship for Single Girl Child -Application approved
68 Anamika Dutta	SVMCM Scholarship – Application approved
69 Rinika Halder	SVMCM Scholarship – Application approved
70 Deep Banerjee	SVMCM Scholarship – Application approved
71 Prakash Manna	SVMCM Scholarship – Application approved
72 Ganesh Mondal	SVMCM Scholarship – Amount received
73 Basabdutta Pradhan	SVMCM Scholarship – Amount received + PG Indira Gandhi Scholarship for Single Girl Child- Application Final Verified By the Ministry
74 Aditi Mondal	PG Indira Gandhi Scholarship for Single Girl Child- Application Final Verified By the Ministry
75 Bani Talukder	Kanyashree (K3) - Application approved
76 Diksha Kar	SVMCM Scholarship – Application approved
77 Moumita Ghosh	Kanyashree (K3) - Application approved
78 Sk Sahil Saklin	Aikyashree – Pending
79 Soumyajit Chakraborty	SVMCM Scholarship – Amount received
80 Susmita Dey	Kanyashree (K3) - Application approved + PG Indira Gandhi Scholarship for Single Girl Child- Application Verified By the Ministry
81 Md Mesbahur Rahaman	HDFC Bank Paribartan’s ECS Scholarship beyond School - Application approved

- Rupak Goswami is acting as a Host Faculty of the UC-Davis Global Fellowship in Agricultural Development (GFAD) (2019-2021). Graduate student hosting from the University of California System. [two cycles completed]

- An Approval for carrying out tests or analysis on Ayurvedic, Siddha and Unani drugs or raw materials used in the manufacture thereof on behalf of licensees for manufacture for sale of Ayurvedic, Siddha and Unani drugs has been granted by ISM drugs Control for Quality Testing Laboratory. The Approval No. is QC-004-DTL dated 25.01.2021. The Approval shall force from 25.01.2021 to 24.01.2024.

- During May – July, 2020, the students and staff of IRDM Faculty Centre reached about 1000 families from the economically backward class who have been worst hit due to the pandemic effect of COVID-19, and through their collaborative network at twelve districts of West Bengal, provided the needy families some basic requirements (rice, potato, lentil, mustard oil, dettol soap, sanitary napkins etc.) worth Rs. 1,58,000/-.

- The Faculty conducted an online survey on COVID-19 entitled “**Survey on people’s Awareness, Crises, and Adaptation during the lockdown period caused by Novel Corona Virus (COVID-19)**” between **20 and 24 June, 2020**. Responses from 587 respondents from 125 Blocks of 21 Districts of West Bengal were recorded.

- LokasikshaParisad in collaboration with Post-Harvest and Food Technology Department of the Faculty is going to start their food processing unit at IRDM Faculty Centre soon.

FACULTY OF AGRICULTURE, RURAL AND TRIBAL DEVELOPMENT

LIST OF TEACHING FACULTY MEMBERS

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>
1	Dr. Raghava Thakur	Professor-cum-Associate Dean
2	Dr. Ashok Kumar Jasu	Professor
3	Dr. Dipankar Chatterjee	Assistant Professor & Head, Division of RTD
4	Dr. Avijit Kr Dutta	Assistant Professor & Head, Division of Agriculture
5	Dr. Arunava Sengupta	Assistant Professor
6	Dr. Vishal Walmik Dhote	Assistant Professor
7	Mr. Amitava Dutta	Assistant Professor
8	Dr. Deep N. Mukherjee	Assistant Professor
9	Dr. Sudarsan Biswas	Assistant Professor
10	Dr. Badole S. Purushottam	Assistant Professor
11	Dr. Pankaj Kumar Mishra	Assistant Professor
12	Mr. Supratim Patra	Laboratory Assistant
13	Mr. Ajeet Kumar	Laboratory Assistant
14	Mr. Suresh Kumar Mahto	Teaching Assistant
15	Mr. Koustab Majumdar	Teaching Assistant
16	Mr. Arindam Ghosh	Teaching Assistant
17	Mr. Sanjoy Dinda	Veterinary Assistant

DETAILS OF STUDENTS ADMISSION DURING THE YEAR

<i>S. No.</i>	<i>Programme</i>	<i>No. of Students</i>
1	5 yr. Int. M.Sc. in Agriculture, Rural and Tribal Development (ARTD)	36
2	M. Sc. in Agriculture, Rural and Tribal Development (ARTD)	12
3	M.A. /M. Sc. in Rural Development and Management (MRDM)	22
4	B. Sc. (Hons) in Agriculture	33
5	B.Voc. in Sustainable Agriculture (BVSA)	38
6	Diploma in Agriculture and Rural Development (DARD)	12

7	Ph.D. in Agriculture, Rural and Tribal Development (ARTD)	7
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STUDENTS PASSED OUT DETAILS OF THE YEAR

S. No.	Programme	No. of Students
1	5 -yr Int. M.Sc. in Agriculture, Rural and Tribal Development (ARTD)	12
2	B. Sc. in Agriculture, Rural and Tribal Development	14
3	M. Sc. in Agriculture, Rural and Tribal Development (ARTD)	1
4	M.A. /M. Sc. in Rural Development and Management (MRDM)	15
5	Diploma in Agriculture and Rural Development (DARD)	27
6	Diploma in Organic Farming (DOF)	15

STUDENTS PLACEMENT AND PROGRESSION DETAILS OF THE YEAR

DETAILS OF STUDENTS PURSUING HIGHER EDUCATION:

S. No.	Name of the student	Institution joined and course persuing
1	Avinab Kumar	PGDM – Development Management at Development Management Institute, Patna
2	Ekata Konar Resources	M.Sc. in Sustainable Livelihoods and Natural Governance at Tata Institute of Social Science
3	Rajdip Pal RKMVERI	M.Sc. in Agriculture and Rural Development at (Narendrapur Campus)
4	Ratula Das Resources	M.Sc. in Sustainable Livelihoods and Natural Governance at Tata Institute of Social Science
5	Sohini Deb Resources	M.Sc. in Sustainable Livelihoods and Natural Governance at Tata Institute of Social Science
6	Soumyadyuti Dey Chowdhury Resources	M.Sc. in Sustainable Livelihoods and Natural Governance at Tata Institute of Social Science

- 7 Srabasti Sen
Technology –
Master of Social Work at National Institute of
Durgapur
- 8 Srijani Basu
University
Master of Business Administration at Bangalore
- 9 Stuti Seekha Raut
M.Sc. in Development Policy, Planning and Practice at
Tata Institute of Social Science
- 10 Tina Sarkar
Resources
M.Sc. in Sustainable Livelihoods and Natural
Governance at Tata Institute of Social Science
- 11 Archana Kumari
Ranchi
B. Voc. in Sustainable Agriculture at RKMVERI
- 12 Benilal Mahto
Ranchi
B. Voc. in Sustainable Agriculture at RKMVERI
- 13 Shibu Bediya
Development
5 Yr. Int. M. Sc in Agriculture, Rural and Tribal
at RKMVERI Ranchi
- 14 Sourav Ghosh
Ranchi
B. Voc. in Sustainable Agriculture at RKMVERI
- 15 Sourja Ghosh
Development
5 Yr. Int. M. Sc in Agriculture, Rural and Tribal
at RKMVERI Ranchi
- 16 Sumit Kumar Mandal
Development
5 Yr. Int. M. Sc in Agriculture, Rural and Tribal
at RKMVERI Ranchi
- 17 Anju Kumari
Development
5 Yr. Int. M. Sc in Agriculture, Rural and Tribal
at RKMVERI Ranchi
- 18 Ankit Kumar
Development
5 Yr. Int. M. Sc in Agriculture, Rural and Tribal
at RKMVERI Ranchi
- 19 Aypal Kumhar
Ranchi
B. Voc. in Sustainable Agriculture at RKMVERI

20	Neha Kumari Development	5 Yr. Int. M. Sc in Agriculture, Rural and Tribal at RKMVERI Ranchi
21	Rohit Oraon Development	5 Yr. Int. M. Sc in Agriculture, Rural and Tribal at RKMVERI Ranchi
22	Shravan Kumar Ranchi	B. Voc. in Sustainable Agriculture at RKMVERI
23	Soumen Mukherjee Ranchi	B. Voc. in Sustainable Agriculture at RKMVERI
24	Vivek Kumar Prajapati Ranchi	B. Voc. in Sustainable Agriculture at RKMVERI

DETAILS OF STUDENTS PLACED:

<i>S. No.</i>	<i>Name of the student</i>	<i>Organisation / Company where placed</i>
1	Arpan Mondal (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
2	Deb Sajal Ghosh	Udyogini, New Delhi
3	Kumari Swan Saumya	Udyogini, New Delhi
4	Manas Sardar (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
5	Pakki Nandini	Professional Assistance for Development Action (PRADAN)
6	Payel Dinda	Udyogini, New Delhi
7	Prajna Parinita Das	Professional Assistance for Development Action (PRADAN)
8	Rudra Pratap Santra (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
9	Sayan Adhikary	Professional Assistance for Development Action (PRADAN)

10	Soumitra Maity (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
11	Tridib Paul	Professional Assistance for Development Action (PRADAN)
12	Amit Singh	Karuna Sechen, Gaya (Bihar)
13	Indradeo Mahto	Karuna Sechen, Jamshedpur (Jharkhand)
14	Pratibha Kumari (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
15	Ranjan Das	Udyogini, New Delhi
16	Satish Kumar (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
17	Shailendra Prasad	Karuna Sechen, Jamshedpur (Jharkhand)
18	Sony Verma	Karuna Sechen, Jamshedpur (Jharkhand)
19	Virendra Kumar (JSLPS),	Jharkhand State Livelihood Promotion Society Ranchi
20	Dileep Mahto Development	Network for Enterprise Enhancement and Support (NEEDS)
21	Juliyani Kerketa	Sashanka Agro. Tech. Pvt. Ltd.
22	Kalyani Kumari	Creative for India Development
23	Kumari Uma	Sashanka Agro. Tech. Pvt. Ltd.
24	Priti Kumari	Creative for India Development
25	Puja Kumari	Shashanka Agro. Pvt. Ltd. Ranchi
26	Rakesh Kumar	Shree Bhagat Kisan Education Society, Ranchi
27	Rakhi Kumari	Creative for India Development
28	Salkhan Lakra	ICICI Foundation
29	Sangita Kumari	NEEDS

30	Srilekha Kumari	Karuna Sechen, Jamshedpur (Jharkhand)
31	Sunil Kumar Mahto	Karuna Sechen, Jamshedpur (Jharkhand)
32	Sushma Kumari	Creative for India Development
33	Anjali Gurung	Shashanka Agro. Pvt. Ltd. Ranchi
34	Gangamani Kumari	Shashanka Agro. Pvt. Ltd. Ranchi
35	Puja Kumari	Karuna Sechen, Jamshedpur (Jharkhand)
36	Swati Kumari	Sri Ram Fertilizers, Ranchi

DETAILS RELATING TO PH. D. SCHOLARS DURING THE YEAR

<i>S. No.</i>	<i>Name of the scholar</i>	<i>Name of Supervisor</i>
1	Arindam Banerjee	Dr. Deep Narayan Mukherjee
2	Anuj Kr Mahto	Dr. Arunava Sengupta
3	Dhiraj Ghosh	Dr. Dipankar Chatterjee
4	Rupesh Kr Monu	Dr. Dipankar Chatterjee
5	Reddi Gowtham	Dr. Avijit Kr. Dutta
6	Supriyo Mandal	Dr. Deep Narayan Mukherjee
7	Sourav Pathak	Dr. Vishal Walmik Dhote

DETAILS OF ACADEMIC PUBLICATIONS DURING THE YEAR

- i. Mahto, S. K. and Dutta, A. K. (2021). Evaluation of bush type French bean varieties through organic farming in south Chhotanagpur plateau of eastern India. Agricultural Science Digest (Published Online: DOI:10.18805/ag.D-5270).
- ii. Dutta, A. K. and Majee, S. K. (2021). Performance of organically grown garden pea varieties in the south Chhotanagpur plateau of eastern India. Journal of Applied Horticulture, 23(1): 78-83.
- iii. Mukherjee, D. N., Mondal, S. and Banerjee, A. (2021). Marketing and 21st Century India: importance of market reforms amidst the growing call for entrepreneurship development. In: Agribusiness Development Planning and Management edited by Anil Bhatt and Jyoti Kachroo. New Delhi Publishers, New Delhi: 2021, 150-168.
- iv. Rajan, N.; Debnath, S.; Dutta, A. K.; Pandey, B. and Singh, A. K. (2020). Characterization of Indigenous Brinjal (*Solanum melongena* L.) Lines Using Morphological Traits under Jharkhand Condition. Annals of Plant and Soil Research, 22 (4):425-431.

- v. Ghosh, S. and Biswas, S. (2020). Digitization and usage of e-governance: a comparative study between semi-urban and rural landscape. *International Journal of Science Technology and Management*, **9**(3):6-16.
- vi. Majumdar, K. (2020). Rural Transformation in India: Deagrarianization and the Transition from a Farming to Non-farming Economy. *Journal of Developing Societies*, Sage publication. <https://doi.org/10.1177%2F0169796X20912631>.
- vii. Majumdar, K. & Chatterjee, D. (2020). Perception of poverty: A study on non-social work students. *Social Work & Society: An International Journal*.
- viii. Majumdar, K. & Chatterjee, D. (2020). Tangible resources, intangible systems: A study on environmental perception among the Lodha community of West Bengal, India. *Journal of Indian Anthropological Society*.
- ix. Sengupta, A. (2020). Skill Development and Employment Generation through Lac Cultivation in Tribal area of Ranchi District, *Indian Journal of Natural Sciences*, Vol.10, Issue 60, 2020:23220-23237.
- x. Sengupta, A. (2020). Bamboo Handicraft and Tribal Economy: A Case of Mahali Tribe of Angara Block, Jharkhand, *Indian Journal of Natural Sciences*, 2020, Vol.10, Issue 60, 2020:23215-23219.
- xi. Sengupta, A. (2020). A Comparative Analysis between Organic and Inorganic Farming: 'Study on Some Selected Villages of Ranchi District, Jharkhand', *International Journal for Science and Advance Research in Technology*, Volume 7 Issue 1, 2021, ISSN [ONLINE]: 2395-1052.
- xii. Sengupta, A. (2020) Sustainable Farming System Models for Small Farmers of Western and South Eastern Plateau Regions of Jharkhand, Edited book, *Agribusiness Development Planning and Management*. New Delhi Publishers, New Delhi: 2021, 35-47. ISBN: 978-81-948993-6-5.
- xiii. Majumdar, K. & Chaterjee D. (2020). Forest Right Act- 2006, Customary Laws and Sustainable Community Development: A Study on Lodha Tribe of West Bengal in Momen et al. *Building Sustainable Communities: Civil Society Response in South Asia*. Palgrave Macmillan, Singapore. ISBN: 978-981-15-2392-2.
- xiv. Majumdar, K., Raul, M. & Chatterjee, D. (2020). Social Status and Subjective Well-being of Tribal Elders: A Narrative Discourse in Jianguo et al. *Social Welfare in India and China: A Comparative Perspective* in Sakaguchi et al., Palgrave Macmillan, Beijing. <https://www.springer.com/gp/book/9789811556470>. ISBN: 978-981-15-5647-0.

- xv. Mishra, P. K and Kumari, M. (2021). Morpho-cultural and pathogenic variability in *Macrophomina phaseolina* isolates from soybean. *The Pharma Innovation Journal*, 10 (3): 777-785.
- xvi. Mishra, P. K and Kumari, M. (2021). Screening of soybean germplasm lines against charcoal rot caused by *Macrophomina phaseolina*. *The Pharma Innovation Journal*, 10(3): 518-520.

DETAILS OF WORKSHOPS / SEMINARS / CONFERENCES / SYMPOSIUMS ATTENDED DURING THE YEAR

Dr. A. Sengupta

- i. 2-Week Faculty Development Programme on “Research Methodology” from October 01 – October 15, 2020 organized by Teaching Learning Centre, Ramanujan College, University of Delhi.

Dr. A. K. Dutta

- i. Webinar on Academic Writing and Research Ethics Organized by IQAC, Janata College, Kabuganj in association with Don Bosco College Central Library, Itanagar from 27th to 29th June 2020.
- ii. International Symposium (Online) on ‘Food Security and the Stand of Civilization: Agri-Horti-Livestock Dynamics in Changing Global Economy’ organized by BCKV, India, Lincoln University College, Malaysia and University of Bengkulu, Indonesia, 20-21 September 2020.
- iii. 2-Week Faculty Development Programme on “Research Methodology” from October 01 – October 15, 2020 organized by Teaching Learning Centre, Ramanujan College, University of Delhi.
- iv. International Webinar on Genome Editing to Enhance Multiple Disease Resistance in Crop Plants organized virtually by Plantgenomia on 20 December 2020.

Dr. V. W. Dhote

- i. Two-week Faculty Development Program/ Refresh Course from January 30-February 14, 2021 on Advanced Research Methodology: Tools and Techniques organized by the Teaching Learning Centre (TLC), Ramanujan College in collaboration with Assam University, Silchar, Assam.

Dr. D. N. Mukherjee

- i. Workshop on Qualitative Research and Its Types, organized by Guru Nanak Dev University, Punjab, 05-07 Oct 2020.
- ii. National Webinar on Rural development in Asia Pacific region organized by NIRD & PR, 24-28 Aug 2020.

- iii. National Webinar on Agricultural market reforms and market intelligence organized by Anand Agricultural University, 07-08 July 2020.
- iv. Workshop on Research methodology for social sciences organized by Anand Agricultural University, 01- 11 Sept 2020.
- v. 4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" from November 10-December 09, 2020 organized by Ramanujan College, New Delhi.

Dr. S. Biswas

- i. Three Days Training Workshop on Mendeley Reference Manager organized by Nuhianwali Education Society, Haryana from 04th to 6th July 2020.
- ii. One Month Online International Training Programme on Research Manuscript Drafting and Publishing organized by Eudoxia Research Centre, India from 6th July to 6th August, 2020.
- iii. 4-Week Induction Programme for "Faculty in Universities/Institutes of Higher Education" organized by Teaching Learning Centre, Ramanujan College University of Delhi from 10th November to 9th December 2020.
- iv. One Week Faculty Development Programme on "Systematic Literature Review and Meta – Analysis" organized by Teaching Learning Centre, Ramanujan College University of Delhi from 7th Dec to 13th Dec, 2020.
- v. SPSS Basics organized by Maulana Azad National Urdu University, Hyderabad from 1st Dec to 14th Dec, 2020.

Dr. B. S. Purushottam

- i. International webinar on How to publish open access and succeed with your publication, one day webinar organized by Taylor and Francis Group on March 25, 2021.

Dr. P. K. Mishra

- i. Three Days Online Training Programme on Mushroom Cultivation from 12 – 14 September 2020 held at MRTC Pantnagar Uttarakhand.
- ii. National Webinar on Mushroom Farming an Avenue for Agripreneurship Development, organized by Agri-business Incubation Centre, ICAR Research Complex for NEH Region, Manipur Centre, Imphal on 3rd November 2020.

Mr. Koustab Majumdar

- i. 8th Indian Social Work Congress and 8th ICSDAP, Visva-Bharati University, Santiniketan, West Bengal, '28th February to 2nd March' 2021.

- ii. Training Programme on Indigenous Knowledge System (IKS) and Rural/Tribal Development: Online knowledge sharing and capacity building of rural/tribal development professionals National Institute of Rural Development and Panchayati Raj (NIRD&PR) Hyderabad March 22 - 26, 2021.

DETAILS OF PROJECTS UNDERTAKEN DURING THE YEAR

S. No.	Project Title	Funding Agency	Principal Investigator	Amount (Rs.)
1	Ethnographic Study of three tribes of Jharkhand (Kol, Khond, Gorait)	Dr. Ramdayal Munda Tribal Welfare Research Institute, Govt. of Jharkhand	PI- Dr. Dipankar Chatterjee Co PI- Dr. Deep Narayan Mukherjee, Dr. S. Biswas, and Sri Koustab Majumdar.	6.30 Lakh
2	Evaluation of RurBan clusters of Jharkhand and West Bengal	Ministry of Rural Development	PI- Dr. Deep Narayan Mukherjee. Co-PI- Dr. Dipankar Chatterjee and Dr. A. Sengupta	21.00 Lakh
3	An Analytical Study of Tribal Students Dropouts and Transition Rates in Rural as well as Urban Schools.	Dr. Ramdayal Munda Tribal Welfare Research Institute, Govt. of Jharkhand	PI- Dr. Arunava Sengupta. Co-PIs-Dr. D. N. Mukherjee & Mr. Amitava Dutta	4.80 Lakh
4	Science, Technology and Innovation Hub for Creating Sustainable Livelihood Opportunities of Scheduled Tribes in Angara Block, Ranchi District, Jharkhand.	Department of Science and Technology (DST), Government of India	PI: Dr. Avijit Kr. Dutta Co-PIs: Dr. A. Sengupta, Dr. D. Chatterjee, Dr. V. W. Dhote, Dr. D. N. Mukherjee, Dr. B. S. Purushottam, Dr. P. K. Mishra & Mr. Amitava Dutta	91.02 Lakh

MISCELLANEOUS INFORMATION

- ❖ The faculty organised a webinar on “An Integrated Approach to face the present Challenge” on 26 April 2021 in the wake of pandemic situation due to second wave of Covid-19. More than 150 participants participated virtually in this webinar.
- ❖ The faculty conducted blood donation camp on 26 March 2021 in collaboration with Rajendra Institute of Medical Sciences (RIMS), Ranchi in which 53 participants (mainly students, research scholars, teaching & non-teaching staff of Ranchi Faculty Centre) donated blood.

EXTENSION ACTIVITIES

THE UNIVERSITY CONDUCTS THREE MAJOR EXTENSION ACTIVITIES:

(i) CERTIFICATE COURSES IN INDIAN SPIRITUAL HERITAGE

(ii) VIVEKDISHA – AN ICT BASED NETWORK

(iii) KRISHI VIGYAN KENDRA

(i) CERTIFICATE COURSES IN INDIAN SPIRITUAL HERITAGE

<i>S. NO.</i>	<i>NAME OF THE COURSE</i>
1	BHAGAVAD GITA (in Bengali)
2	BHARATIYA ADHYATMIK AITIHER SAARSANKHEP (Indian Spiritual Heritage – in Bengali)
3	SRI RAMAKRISHNA KATHAMRITA (The Gospel of Sri Ramakrishna - in Bengali)
4	PATANJALI YOGASUTRA (in Bengali)
5	SRI MAA SARADA – JIVANI O BANI (Life and Message of Holy Mother Sarada Devi - in Bengali)
6	TEEN RAMAYAN KI JHANKI (Glimpse of Adhyatma Ramayana and Ramayana by Valmiki & Tulasidas - in Hindi)
7	TAITTIRIYA UPANISHAD (in Bengali)
8	DEV VANI O BHAKTI PRASANGA (Selections from Swami Vivekananda's Complete Works – in Bengali)
9	SRI RAMAKRISHNA LILAPRASANGA O SRI SRI CHANDI (in Bengali)
10	SPIRITUAL HERITAGE OF INDIA (in English)
11	VIVEKCHUDAMANI (in Bengali)
12	SWAMI VIVEKANANDER JIVANI (Life of Swami Vivekananda -in Bengali)
13	RAMAYAN AND MAHABHARAT (in Bengali)
14	MUNDAKA UPANISHAD AND MANDUKYA UPANISHAD (in Bengali)
15	SRIMAD BHAGAVATAM (in Bengali)

(ii) VIVEKDISHA – AN ICT BASED NETWORK

Vivekdisha is an ICT-based Network of the University that provides online education primarily to school students and also conducts online programmes on Indian cultural and spiritual heritage.

The online education programme of VIVEKDISHA are run in 25 remote schools and are monitored from the University's Expert Centre at the Belur main campus.

(iii) KRISHI VIGYAN KENDRA

Krishi Vigyan Kendras (KVKs) — KVK is a project of The Indian Council of Agricultural Research (ICAR) which is the apex body for coordinating, guiding, and managing research and education in agriculture in the entire country. It aims to work for the benefit of the farmers, to make available the discoveries made by the scientists in their laboratories to the farmers in their lands.

The KVKs help the farmers and rural youths by:

- A) Conducting on-farm testing to assess the location specificity of agricultural technologies under various farming systems,
- B) Conducting frontline demonstration to establish production potential of technologies on the farmers' fields,
- C) Helping in capacity development of farmers to update their knowledge and skills on modern agricultural technologies,
- D) Working as Knowledge and Resource Centre of agricultural technologies for supporting initiatives for improving the agricultural economy.

Our University has been allotted 3 KVKs by the ICAR:

- (i) 'Sasya Shyamala' KVK located at Arapanch (under the Ramakrishna Mission Ashrama, Narendrapur Centre, 24-Parganas District) — functioning for the past 5 years
- (ii) 'Dhaanyaganga' KVK under Ramakrishna Mission Ashrama, Sargachhi, Murshidabad District—functioning for the past 3 years
- (iii) 'Amarkanan' KVK under Ramakrishna Mission Ashrama, Ramharipur, Bankura (in the pipeline)

Sasya Shyamala Krishi Vigyan Kendra

Under the Aegis of

Ramakrishna Mission Vivekananda Educational and Research Institute

1. Achievements on technologies assessed and refined through On-Farm Trials (OFTs)

Sl. No.	Technology	Results
1.	Varietal assessment through high yielding varieties of Lentil during Rabi season	Lentil var. IPL - 220 and L - 4717 showed higher grain yield (9.15 q/ha), Number. of branches (7.52), Number. of pods per plant (130) and 100 seed weight (2.99g). Net return of the variety per ha was found to be the highest (Rs.28,325.00) with high B:C ratio (2.29) with respect to other treatments.
2.	Varietal assessment through high yielding varieties of green gram during summer season	Green gram var. IPM-205-7 gave highest grain yield (11.80 q/ha) along with highest number of branches per plant (4.50), number. of pods per plant (21.20), number of seeds per plant (10.50) and 100 seed weight (4.52g). This variety also recorded high net return (Rs. 45,800.00) with high B:C ratio (2.83) in comparison to other treatments.
3.	Evaluation of varietal performances in shelf life of tomato	Tomato var. Arka Rakshak showed highest yield (71.3 t/ha) along with the keeping quality and found superior in terms of bio-chemical characters than others. Net return (Rs.2,04,500.00) and B:C ratio (1.90) were also the highest in comparison to other varieties as well as farmers' practice.

4.	Management of Flower and Fruit drop in chilli	Foliar spray of NAA 10 ppm (100 mg/liter of water) and Biozyme 2 ml/liter of water on 45, 60 and 75 days after planting showed maximum number of fruit set (86.4%) in the chilli plant which was reflected in the yield of each plant (8.26 kg) with highest yield (13.02q / ha). Net return (Rs. 99,500.00) and B:C ratio (2.37) were also the highest in comparison to other Technology options as well as farmers' practice.
5.	Effect of macro-nutrient management on growth, yield and economics of hybrid Rabi maize	Across the locations, fertilizer application based on the recommendation of nutrient expert significantly increased yield attributes and grain yield over other practices, immediately followed by state recommendation. Highest profitability was obtained with nutrient expert based fertilization. However, LCC based recommendation and State recommendation resulted at par B:C ratio. Based on these results, nutrient expert based recommendation can be proposed to the farmers, albeit such recommendations are entirely site-specific.
6.	Effect of soil application of sulphur on growth, yield and economics of hybrid sunflower during Rabi Season	Sulphur fertilization can significantly ($p < 0.05$) augment yield attributes and seed yield over farmers' fertilizer practice. Successive increase in sulphur doses brought about significant increase in seed yield of sunflower upto 50 kg S/ha. However, further increase in sulphur dose did not give any extra benefit. Similar trend has also been observed in case of net profit and B:C ratio of hybrid sunflower cultivation. Quadratic response curve also showed the trend line of sulphur responses towards seed yield of sunflower. The economic optimum of sulphur doses were estimated, and it was observed that the optimum doze of sulphur for maximum economic return was 58.93 kg/ha.
7.	Comparative analysis of IPM module and new generation insecti-cide in managing borer	Among the insect pests, gram pod borer (<i>Helicoverpa armigera</i> . Hubner), <i>Spodoptera litura</i> and <i>Maruca testulalis</i> cause severe damage and associated with huge yield losses across green gram growing regions of the country. Due to its high fecundity and polyphagous nature total coverage of insecticides to the insect are

	<p>complex of green gram</p>	<p>mostly impossible and due to their quick adaptations against the insecticides, control of this pest with any single potent toxicant for a long time is quite difficult and rather impossible whereas IPM could be a good option to mitigate the infestation and increase the seed yield. It is apparent from the present result that IPM module comprises of application of <i>Trichoderma viride</i> enriched cow dung @ 100 kg / bigha, seed treatment with Carboxin 17.5 % + Thiram 17.5 % @ 3 ml / kg seed, installation of pheromone trap @ 4 no.s/ bigha, need based spot application of neem seed kernel extract (NSKE) @ 3 ml / lt gave superior result over the farmers' practices (generally no spray to injudicious spray of broad spectrum insecticides) in terms of yield parameters (No. of pods per plant: 11.25, no. of seeds per plant: 10.55) as well as reduction of pod borer complex (73.75) below ETL level. Highest level of reduction in pod borer infestation was observed through two round spraying of Beta cyfluthrin 8.49% ww + Imidacloprid 19.81 ww @ 0.4 g/lt and Thiodicarb 75 wp @ 1.25 g / lt at 30 DAS onwards at 15 days' interval.</p>
<p>8.</p>	<p>Impact of Trichocompost in vegetable based cropping system</p>	<p><i>Sclerotium / Pythium/ Phytophthora</i> sp. infection is common in nursery bed causing damping off diseases of newly emerged seedlings. <i>Trichoderma</i> sp., the antagonist fungi of the aforesaid pathogen based composting proved beneficial; attempt been made to assess the impact of trichocompost on soil borne pathogen incidence. Significant effect of trichocompost was recorded on growth parameters of tomato seedlings like plant height, number of leaves, main stem diameter of plant (mm), leaf length (cm) and yield. Trichocompost @ 1 q / kattha Urea- 3 kg, SSP- 2 kg, MOP- 1 kg, Bavistin @ 2.5 g / lt spray once gave superior results over other technology option as well as farmers practices, but still seedling raised using trichocomost solely gave quite better result than that of use of vermicompost and farmers practices. As in the main field recommended dose of fertilizer was applied</p>

		and similar management practices were followed the effect of seedling and its vigour put forth significant impact on yield also.
9.	Evaluation of Pinnapple (<i>Ananas comosus</i>) fruit peel as natural dewormer in goats	Deworming with pineapple fruit peel extract has significantly increased live body weight of goat kids (2 months of age). Faecal egg counting from goat faecal samples was done using modified Mc Master technique. Mean count of eggs per gram (EPG) was significantly lower in experimental group compared to farmers' practice group. The result showed antihelminthic role of pineapple fruit peel extract on GI nematodes of goats.
10.	Hatchery production of Golden Mbuna (<i>Melanochromis auratus</i>) ornamental fish in Biofloc Technology (BFT)	<p>Biofloc, Periphyton and Biophyton based aquaculture system are modern concepts and eco-friendly approaches in closed water aquaculture.</p> <p>Bottom clean or fish toilet technology among all the treatment recorded highest production over the farmers' practices and it was also statistically significant.</p> <p>In present study, Golden Mbuna fishes with feeding (commercial feed) @ 8-10% of total body weight + Biofloc + Periphyton (Biophyton rearing practices with stocking density 1 no. / It can significantly ($p < 0.05$) increase production attributes and production of Golden Mbuna over farmers' practice. However, use of both Periphyton farming and Biofloc also showed good result. Net return was observed the highest in case of use of Bio-phyton with lowest net return in case of farmers' practice.</p>

2. Performance of Frontline Demonstration (FLD) on crops and enterprises

2.1. Cereals

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2.2. Pulse

Crop	Theme			
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Crop	Thematic Area	Technology demonstrated	No. of Farmers	Area (ha)
Rice	Soil health management	Leaf colour chart technology	4	1.1
Rice	Crop production	SRI technology	7	2.0
Rice	Crop production	Drum seeder technology	7	2.0
Baby corn	Crop production	Cultivation of baby corn	7	1.0
Total			25	6.1

		Technology demonstrated	No. of Farmers	Area (ha)
Lathyrus	Crop production	Rice-fallow intensification	10	2

2.3. Oilseed

Crop	Thematic Area	Technology demonstrated	No. of Farmers	Area (ha)
Sunflower	Varietal Evaluation	Dibakar	7	2

2.4. Other enterprise

Category	Name of the technology demonstrated	No. of Farmer	No. of units
Oyster mushroom	Enterprise development	19	19
Others	Homestead trichoderma production	7	7

Total		26	26
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2.8. Demonstration sponsored by Ministry of Agriculture, Govt. of India on Pulse and Oilseed Crops during Kharif and Rabi 2020-'21

Crop	Name of Variety/Technology demonstrated	Number of beneficiaries	Area (ha)
Lentil	PL 8, IPL 316 and WBL 77 Line sowing with post-emergence herbicide application; Foliar application of boron and DAP; Integrated Crop Management; and liquid organic manure application	71	10
Green Gram	Virat and IPM 02-3; Line sowing with post-emergence herbicide application; Foliar application of boron and DAP; Integrated Crop Management; Seed treatment with bio-fertilizer	66	10
Mustard	PM 28, PM 30, YSH 0401 and NRCHB 101 Line sowing (30 cm × 10 cm), Application IPM (Seed treatment, Yellow sticky trap, spraying insecticide), Weed management (Spraying pendimethalin alongwith 1 hand weeding at 25 DAS or post-emergence herbicide), Foliar application of sulphur and boron	53	30
	Total	190	50

3. Achievements of Training Programmes (Practicing Farmers and Rural Youths):

Cli- en-	Title of the training programme	Dur- a-	Ven- ue	Number of participants	Number of SC/ST
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tele		tion in day s	(Off / On- Cam pus)	M e n	Wo men	Tot al	M e n	Wo men	To tal
Crop production									
PF	Improved practices for sesame cultivation	1	Off campus	7	23	30	5	16	21
PF	Use of Drum Seeder Techniques in Paddy Cultivation	1	On campus	2 2	3	25	4	3	7
PF	Improved cultivation practices of boro paddy	1	Off campus	2 3	7	30	1 9	3	22
PF	Use of modern implements in rice cultivation	1	Off campus	1 6	4	20	8	2	10
PF	Cultivation practices for boro paddy	1	Off campus	3 0	7	37	3 0	7	37
PF	Integrated crop management of lentil	1	Off campus	2 8	17	45	1 1	3	14
PF	Integrated crop management of greengram	1	Off campus	4 6	9	55	2 5	6	31
PF	Weed management in both nursery bed and main field of <i>kharif</i> paddy	1	Online	2 2	8	30	1 3	6	19
PF	Macro and micro nutrient management in <i>kharif</i> paddy	1	Online	2 4	0	24	2 4	0	24

PF	Essential plant nutrients, their deficiency symptoms, beneficial effects on crops including calculation of fertilizer doses	1	Online	11	6	17	11	5	16
PF	Weed management in <i>kharif</i> paddy	1	Online	15	7	22	8	2	10
PF	Weed management of <i>kharif</i> paddy	1	Online	40	1	41	18	1	19
PF	Improved cultivation techniques of potato	1	Online	8	7	15	5	5	10
PF	Improved cultivation techniques of baby corn	1	Online	10	7	17	7	5	12
PF	Integrated crop management of mustard	1	Online	29	0	29	0	0	0
PF	Integrated crop management of sunflower	1	Online	25	5	30	15	2	17
PF	Weed management of <i>rabi</i> oilseed crops	1	Online	33	0	33	3	0	3
PF	Weed management of <i>rabi</i> pulse crops	1	Online	39	7	46	17	2	19
PF	Weed management in <i>rabi</i> crops	1	Online	15	0	15	0	0	0
PF	Nursery management in boro paddy	1	Online	20	0	20	20	0	20
PF	Relay cropping technique of lentil, lathyrus and mustard	1	Online	17	4	21	13	2	15
PF	Techniques of using drum seeder for sowing	1	Online	22	0	22	0	0	0

	germinated rice seed in the puddled field								
Horticulture									
PF	Scientific cultivation techniques and management practices of summer vegetables	1	Off Campus	11	23	34	7	12	19
PF	Scientific cultivation techniques and management practices of summer vegetables	1	Off Campus	10	25	35	5	4	9
PF	Scientific cultivation techniques of Turmeric	1	Off Campus	31	3	34	21	3	24
PF	Value addition of Horticultural crops	1	Off Campus	15	10	25	3	0	3
PF	Scientific cultivation techniques of Elephant Foot Yam	1	Off Campus	21	4	25	3	3	6
PF	Production Technology of High value vegetables	1	Off Campus	10	31	41	4	5	9
RY	Nursery Management of Horticulture crops	1	Off Campus	15	14	29	5	4	9
PF	Off Season vegetable production Technology	1	Off Campus	14	22	36	11	14	25
PF	Technologies for raising of healthy seedlings of flower and vegetable crops and their management practices for nursery management	1	Off Campus	22	10	32	8	10	18

Ry	Off season vegetable production	1	Off Campus	20	7	27	4	3	7
PF	Technologies for raising of healthy seedlings of flower and their management practices	1	Off Campus	17	9	26	10	4	14
Ry	Orchard Management with intercrops	1	Off Campus	22	8	30	8	2	10
PF	Multi-tier Technology	1	Off Campus	30	0	30	24	0	24
PF	Cultivation Technology of Fruit crops like Ber, Guava, Banana and Sapota for Orchard development	1	Off Campus	28	4	32	10	4	14
PF	Off season vegetable production	1	Off Campus	22	10	32	10	12	22
PF	Nutritional Gardening	1	Off Campus	15	17	32	7	14	21
PF	Multi-tier Horticulture	1	Off Campus	22	6	28	0	6	28
Plant protection									
PF	ZBNF technology Method demonstration	1	Off Campus	16	6	22	11	4	15
PF	On farm production of bio-stimulants	1	Off Campus	7	26	33	7	26	33

PF	Soil borne disease mgmt.	1	Off Cam pus	2 1	14	35	2 1	14	35
RY	Mushroom cultivation and bi-products	1	Off Cam pus	2 0	5	25	1 3	5	18
PF	Biostimulant preparation	1	Off Cam pus	9	16	25	2	3	5
PF	Pest mgmt. of chilli and border netting tech.	1	Off Cam pus	2 1	6	27	1 7	3	20
PF	Pest and diseases of cucurbits	1	Off Cam pus	2 0	6	26	1 3	4	17
PF	Plant pathogen and interaction with crops	1	Off Cam pus	3 5	1	36	3 0	1	31
PF	Rugose spiralling whitefly mgmt.	1	Off Cam pus	2 8	10	38	2 2	6	28
PF	IPM of vegetable	1	Off Cam pus	2 5	7	32	1 8	7	25
RY	Mushroom cultivation	1	Off Cam pus	1 0	28	38	7	15	22
PF	Fertilizer and water management in maize	1	Off Cam pus	2 5	6	31	1 5	4	19
RY	Mushroom cultivation	1	Off Cam pus	2 0	12	32	1 6	12	28

PF	On farm prod. of biopesticide	1	Off Campus	20	5	25	14	5	19
PF	Management of guava wilt	1	Off Campus	15		15	15		15
RY	Mushroom cultivation	1	Off Campus	14	21	35	9	19	28
PF	ZBNF technology	1	Off Campus	33	2	35	24	2	26
RY	Trichocompost preparation	1	Off Campus	22	6	28	17	6	23
Soil fertility and fertilizer management									
PF	Technology of using LCC card on maize	1	Off Campus	11	19	30	4	5	9
PF	Techniques of collection and preparation of soil sample for soil testing	1	Off Campus	21	29	50	17	14	31
PF	Enhancement of fertilizer use efficiency through integrated nutrient management in different crops	1	Online	10	2	12	4	0	4
PF	Soil health management in problem soils- saline and acid sulphate soil	1	Online	31	10	41	19	5	24
PF	Green manuring and organic farming	1	Online	18	10	28	14	5	19

PF	Soil health management in problem soils- saline and acid sulphate soils	1	Online	12	24	5	5	10
PF	Green manuring and organic farming	1	Online	34	41	14	5	19
PF	Reclamation approaches of different soil erosion to improve the soil health	1	Online	9	14	0	0	0
PF	Techniques of production of Azolla to improve the soil health	1	Online	25	32	13	3	16
PF	Enhancement of fertilizer use efficiency through integrated nutrient management in different crop	1	Online	17	21	9	2	11
RY	Technique for preparation of vermicompost	1	Online	21	27	17	3	20
RY	Technique for preparation of vermicompost	1	Online	15	21	15	6	21
RY	Technique for preparation of vermicompost	1	Off Campus	7	35	4	26	30
PF	Soil health management	3	On Campus	13	30	13	12	25
PF	Techniques of collection and preparation of soil sample for soil testing	1	Off Campus	8	30	8	22	30

PF	Reclamation approaches of different soil erosion to improve the soil health	1	Off Campus	2	28	30	2	28	30
PF	Strengthening the knowledge about the nutrient-fertilizer relationship and utilization of soil test based recommendation through SHC	1	Online	11	5	16	8	0	8
PF	Strengthening the knowledge about the nutrient-fertilizer relationship and utilization of soil test based recommendation through SHC	1	Off Campus	13	17	30	13	12	25
Seed production									
RY	Training on seed production techniques of Oilseed crops	3	Off Campus	20	10	30	5	1	6
PF	Training on purity maintenance of lentil seed production programme	1	Off Campus	22	8	30	12	0	12
PF	Training on purity maintenance of greengram seed production programme	1	Off Campus	17	13	30	5	2	7
PF	Training on purity maintenance of greengram seed production programme	1	Online	23	0	23	0	0	0
RY	Training on seed production techniques	3	Online	25	0	25	0	0	0

	of paddy to increase the farmers income								
RY	Training on hybrid seed production techniques of Vegetables	3	Online	25	2	27	1	0	1
RY	Training on Village Seed Production Programme for increasing farmers income	3	Online	16	6	22	13	5	17
PF	Training on purification in paddy seed production programme	1	Off Campus	16	12	28	16	12	28
EF	Training on quality seed production techniques to increase the farmers income	1	Off Campus	6	24	30	6	24	30
EF	Training on quality seed production techniques to increase the farmers income	1	Off Campus	24	6	30	24	6	30
Animal Husbandry									
PF	Scientific Backyard Poultry Farming	1	Off Campus	1	23	24	1	23	24
PF	Scientific Backyard Poultry Farming	1	Online	7	18	25	2	18	20
PF	Scientific Duck Farming	1	Online	3	14	17	3	14	17
PF	Scientific Backyard Poultry Farming	1	Online	16	0	16	16	0	16
PF	Training on Scientific rearing of Backyard livestock	2	Online	10	15	25	10	14	24

PF	Training on Scientific rearing of Backyard livestock	2	Online	13	7	20	12	7	19
PF	Scientific Backyard Poultry Farming	1	Off Campus	0	20	20	0	20	20
PF	Training on Management of cross bred cows with emphasis on green fodder production	1	Online	25	8	33	25	6	31
RY	Training on improved goat rearing technologies	3	On Campus	18	12	30	10	5	15
RY	Management of backyard poultry	3	On Campus	1	29	30	0	17	17
RY	Management of backyard poultry	4	On Campus	20	8	28	17	5	22
Fisheries									
PF	Scientific Pre-stocking and post-stocking management practices in composite fish culture with special reference to nutrient management, disease management and space utilization	1	Online	30	2	32	28	2	30
PF	Rearing pond management practices for high density Indian Major Carp culture	1	Online	30	5	35	25	3	28
PF	Nursery Pond management with special reference to	1	Online	25	5	30	25	5	30

	nutrition and disease management								
PF	Training on fish diseases and its prevention with Good Management Practics	2	Online	34	31	65	22	21	43
PF	Training on Scampi culture and Management in extensive pond culture system of South 24 Pdns district	2	Online	60	0	60	30	0	30
PF	Scientific fish culture practicses in Bheries/ coastal saline areas of Soth 24 Pgs	1	Online	28	12	40	28	2	30
PF	Training on Air breathing fish culture with special reference to magur, singhi and koi	2	Online	60	30	90	35	15	50
RY	Training on Ornamental fish farming in backyard hatchery system	8	Online	75	5	80	50	5	55
RY	Training on Air breathing fish breeding with special reference to magur, singhi and koi	4	Online	30	5	35	25	3	28
RY	Training on shrimp culture in coastal saline areas of South 24 Pdns district	2	Online	25	5	30	25	0	25
RY	Training on mud crab fattening for the rural youths of Sundarban Aila affected areas	4	Online	40	30	70	22	10	32

Ry	Scientific fish culture practises in Bheries/ coastal saline areas of South 24 Pdns district	3	Online	18	12	30	18	2	20
EF	Training of Fishery Extension Officers / Members of Farmers' Clubs of the district on Enhancement of fish production through improved aquaculture technologies	2	Online	47	13	60	13	6	19
Total		109 nos		2276	1126	3402	1370	712	2103

- (Practicing farmers - PF / Rural Youths-RY)

4. Sponsored Training Programmes:

S l. No	Title	Thematic area	Month	Duration (days)	Client PF/ RY /EF	No. of courses	Participants				Sponsoring Agency
							Others	S C	S T	Total	
1.	Soil health management for sustainable agriculture	Soil Health management	March, 2020	3	PF/ RY	1	5	0	25	30	RKVY
2.	Improved production technology of jute under NFSM-	Crop production	October, 2020	1	PF	1	42	8	0	50	Directorate of Jute Development

	Commercial Crops-Jute											ment, Kolkata
3.	Awareness-cum-training programme on Doubling Farmers' Income	Crop production	March, 2020	1	PF	1	20	60	0	80		Shilpa Bichitra
	Total					3	67	68	25	160		

5. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers				Extension Officials			Total		
		Men	Women	Total	SC/ST (% of total)	Men	Women	Total	Men	Women	Total
Field Day	3	94	38	132	76	0	0	0	94	38	132
Method Demonstrations	7	260	98	358	68	2	0	2	262	98	360
Lectures delivered as resource persons	31	246	87	333	64	4	2	6	250	89	339
Advisory Services	21	330	150	480	56	4	1	5	334	151	485
Scientific visit to	110	270	129	399	54.2	0	0	0	270	129	399

farmers field											
Farmers visit to KVK	113	450	130	580	62	0	0	0	450	130	580
Diagnostic visits	8	300	120	420	71	0	0	0	300	120	420
Exposure visits	8	155	165	320	67	12	0	12	167	165	332
Animal Health Camp	4	57	23	80	100	2	0	2	58	23	82
Self Help Group Conveners meetings	2	20	20	40	74	0	0	0	20	20	40
Mahila Mandals Conveners meetings	2	0	40	40	72	1	0	1	1	40	41
World Fisheries Day 2019	1	65	75	140	58	7	3	10	72	78	150
Mahila Kisan Divas	1	107	9	116	64	1	0	1	107	9	116
Any Other (Expert Survey under World Bank)	2	100	150	250	58	11	3	14	111	153	264
Total	313	2454	1234	3688	-	44	9	53	2496	1243	3740

6. Production and supply of Technology products

6.1. Village seed Production:

Crop	Variety	Quantity of seed (q)	Value (Rs)	No. of farmers involved into village seed production	Number of farmers into whom seed provided			
					SC	ST	Other	Total
Rice	Swarna Sub-1	12.0	18000.00	3	0	3	0	3
	Sabita	50.00	75000.00	10	7	0	3	10
	Rajendra Bhagwati	10.00	15000.00	3	0	3	3	0
	CR-1009 Sub-1	5.00	7500.00	1	0	1	0	1
	Sampriti	4.00	6000.00	1	0	1	0	1
Greengram	IMP-205-7	129.85	1558200.00	56	12	0	44	56
Total	-	210.85	1679700.00	74.00	19.00	8.00	50.00	71.00

6.2. Seed Production in the KVK farm

Crop	Area (ha)	Variety	Type of Produce	Quantity (q)	Gross income
Rice	0.93	Sabita	Foundation	18	54000.00
	4.77	Sabita	Certified	100	300000.00
	0.3	Shatabdi	Certified	6	18000.00

	0.13	Swarna Sub 1	Foundatio n	7	21000.0 0
	0.5	Swarna Sub 1	Certified	10	30000.0 0
	0.13	Samba Sub 1	Foundatio n	2.8	8400.00
	0.13	CR 1009 Sub 1	Foundatio n	2.1	6300.00
	0.13	CR-506	TL	2.6	7800.00
	0.07	CR- 302	TL	1	3000.00
	0.2	CR-507	TL	3.2	9600.00
	0.07	CR-202	TL	1.2	3600.00
	0.08	Kalabhat	TL	1.6	4800.00
	0.2	IET-27051	TL	4	12000.0 0
	0.2	Santoshi		6.2	18600.0 0
Lentil	0.13	IPL-220	Foundatio n	0.5	5000.0
	0.13	L-4717	Foundatio n	0.5	5000.00
	0.13	IPL-526	Foundatio n	0.5	5000.00
Khesari	0.2	Ratan	Certified	1	8000.00
	0.2	Ratan	Foundatio n	2.5	20000.0 0
	0.2	Mohatera	Foundatio n	2.5	20000.0 0
Mustard	0.13	YSH-0401	Certified	0.7	4900.00
	0.13	PM-30	Certified	0.6	4200.00
	0.13	PM-31	Foundatio n	0.75	5250.00

	0.13	PM-30	Foundation	0.6	4200.00
	0.13	YSH-0401	Foundation	0.5	3500.00
	0.13	Pitambori	Foundation	0.75	5250.00
Green-gram	0.33	SML-668, VIRAT, IPM-02-14	Foundation	3	30000.00
	1.33	Virat	Certified	12	120000.00
Turmeric	0.07	Suranjana, Local, Suguna, Subarna	TL	4	40000.00
Elephant Foot Yam	0.07	Bidhan Kusum	TL	0.5	4000.00
Sesamum	0.77	Suprava	Certified	1.5	15000.00
Dhaincha	0.53	Local	TL	1.5	6000.00
Total	41.74			199.6	8,02,400.00

6.3. Production of planting materials by the KVK including village production:

Crop	Variety	No. of planting materials	Number of farmers to whom planting material provided			
			SC	ST	Other	Total

Vegetable seedlings						
Brocoli	Besty	5000	10	0	2	12
Capsicum	Indra (Green)	15000	4	1	1	6
Carrot	Samson 196	120000	5	2	0	7
Beet	Dark Red	100000	6	0	4	10
French Bean	Serengeti	200000	3	1	4	8
Coriander	Caribe	300000	4	2	2	8
Bitter gourd	Meghna	2000	4	0	3	7
Tomato	Himsikhar/ Himsona	25000	3	1	2	6
Cauliflower	PAN-3025	10000	6	0	1	7
Purple Cauliflower	Valentena	2500	1	0	2	3
Cabbage	Royal Ball	1000	2	0	4	6
Knolkhol	Sakura	12500	4	3	2	9
Chilli	Siddhi	50000	5	4	3	12
Elephant Foot Yam	Bidhan Kusum/Santra gachi	1000	4	0	2	6
Turmeric	Suranjana	2000	2	1	1	4
Total		10,47,000	63	15	33	111

6.4. Production of Bio- product

6.5. Production of livestock materials /
Fish spawn /fingerlings

Products	Quantity (kg.)	Number of farmers
Bio-Products		
Vermi compost	42000	16
Azolla	1500	16
Earthworms	42	7
Total	43542	39
Bio- pesticides		
Neem extract	120 lt	6
Tobacco extract	45	5
Trichoder-maviride	225	15
Panchagavya	300	20
Jeevamrit	500	25
Beejamrit	75	5
Total		76
Worms		
<i>Eudrilus euginae / Eisenia foetida</i>	42	7
Total	42	7
Others		
Mushroom-spawn	300	1
Total	300	1

Particulars of Live stock	Name of the breed	Number	No. of Farmers benefitted
Dairy animals			
Calves	Crossbred Jersey	2	2
Small ruminants			
Goat	Black Bengal	23	23
Poultry Birds			
Duals (broiler and layer)	Kaveri	4884	0
Turkey	White Broad Breasted	500	0
Ducks	Khaki Campbell	600	0
Others	Kadakhnath	600	0
Fisheries			
Indian carp	Jayanti Rohu	1,50,000	10
Exotic carp	Amur carp	50,000	10
Mixed carp	Rohu, catla Mrigel	1,00,000	200
Fish fingerlings	Magur, singhi, koi	10,000	12
Spawn	Labeo bata	50,000	1
Others	Chilids, gold fish , angel,	1,00,000	45

	sivoram, live bearers		
Grand Total		466609	303

7. Details of Seed Hub Programme - "Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India"

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed (FS, CS)
Rabi 2020-21	Lentil	IPL-316	100.00	30.00	250.00	CS
Summer/Spring 2021	Greengram	IPM-205-7	400.00	50.00	560.00	CS

8. Publication:

Research Paper: 21	Conference paper: 4	Books: 1	Popular Article: 5
Book Chapter: 2	Extension Pamphlets/Literature: 5	Electronic Publication (CD/DVD etc): 2	

9. Details of samples analyzed :

Laboratory	No. of Samples	No. of Villages	Amount realized (Rs.)

Through Soil Testing laboratory	386	12	173229.00
Through Fish Disease Diagnostic Laboratory	2100	18	213780.00

10. Utilization of KVK funds during the year 2020-21

Sl. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances (including Arrear for 7 th CPC Recommendation)	2,00,50,000/- (incl. arrear of Rs. 40.5 lakh)	2,00,50,000/- (incl. arrear Rs. 40.5 lakh)	1,86,83,764/-
2	Travelling Expenditure	80,000/-	80,000/-	65,931/-
3	HRD	30,000/-	30,000/-	4,684/-
4	Contingencies			
A	Stationery Telephone etc.			
B	POL etc.	1,20,000/-	1,20,000/-	1,20,000/-
C	Training	90,000/-	90,000/-	90,000/-
D	FLD	45,000/-	45,000/-	45,000/-
E	OFT	45,000/-	45,000/-	45,000/-
F	Maintenance of Building	3,00,000/-	3,00,000/-	3,00,000/-
G	SCSP	15,00,000/-	15,00,000/-	15,00,000/-
H	Swachhata Aviyon	15,000/-	15,000/-	15,000/-

TOTAL (A)		2,22,75,000/-	2,22,75,000/-	1,08,69,379/-
B. Non-Recurring Contingencies				
1	Library	10,000/-	10,000/-	10,000/-
GRAND TOTAL (A+B)		2,22,85,000/-	2,22,85,000/-	2,08,79,379/-

Status of Revolving Fund (Rs. in lakh) :

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year (kind + cash)
2019-20	26,32,383/-	3,94,92,572/-	3,02,16,397/-	1,19,08,558/-
2020-21	1,19,08,558/-	9,95,95,398/-	7,54,04,729/-	3,60,99,227/-

TECHNICAL ACHIEVEMENTS

SUMMARY OF TARGET AND ACHIEVEMENT DURING THE YEAR

OFT										FLD											
No. of technologies tested:										No. of technologies demonstrated:											
Number of OFTs		Number of farmers								Number of FLDs		Number of farmers									
Targ et	Achie vement	Targ et	Achievement							Targ et	Achie vement	Targ et	Achievement								
09	09	91	SC	ST	Othe rs		Total			18	18		SC	ST	Other s		Total				
			M	F	M	F	M	F	M	F	T		M	F	M	F	M	F	T		
			2	9	7	0	4	8	7	1	91		7	6	18	0	20	0	30	20	30
			1				6		4		7					8					2

Training										Extension activities										
Number of Courses										Number of participants										
Number of Courses		Number of Participants								Number of activities		Number of participants								
Targ et	Achi vement	Targ et	Achievement							Targ et	Achi vement	Targ et	Achievement							
			Other s	SC	ST	Total						SC	ST	Others		Total				
			M	F	M	F	M	F	M	F	T	M	F	M	F	M	F	M	F	T

160	151	4897	2896	455	1099	184	284	84	4284	708	4992	756	732	15000	1200	225	800	100	7217	2502	9217	2827	12044
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Impact of capacity building											Impact of Extension activities										
Number of Participants trained		Number of Trainees got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)									Number of Participants attended		Number of participants got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)								
Target	Achievement	SC		ST		Others		Total			Target	Achievement	SC		ST		Others		Total		
		M	F	M	F	M	F	M	F	T	1500	12044	M	F	M	F	M	F	M	F	T
865	865	61	31	18	11	13	84	20	12	335			27	10	21	9	87	39	135	58	1942
						0	9	6					0	2	0	2	6	2	6	6	

Seed production (q)				Planting material (in Lakh)			
Target		Achievement		Target		Achievement	
420		455		0.90		0.91	

Livestock strains and fish fingerlings produced (in lakh)*				Soil, water, plant, manures samples tested (in lakh)			
Target		Achievement		Target		Achievement	
Livestock : 40		Livestock : 204		Soil-750		Soil-817	
Fish spawn : 3 million		Fish spawn : 6 million		Water-30		Water-36	

Fingerling : 10 quintal	Fingerling : 18 quintal	Plant - 50	Plant - 64
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* Give no. only in case of fish fingerlings

DETAILS OF SUMMARY AS STATED ABOVE

A) ON FARM TRIAL:

Sl No	Title
OFT-1	Assessment of Suitable Short duration Variety for Rice- Mustard- Sesame Cropping System
OFT-2	Field-effectiveness of some integrated pest management modules against Fall Armyworm, <i>Spodoptera frugiperda</i> in maize
OFT-3	Efficacy of some integrated management schedules against leaf-curl complex of chilli
OFT-4	Refinement of some integrated management practices against <i>Fusarium</i> wilt disease of lentil
OFT-5	Effect of different types of mulching on growth and productivity of pointed gourd
OFT-6	Evaluation of performance of different poultry breeds in Murshidabad district under backyard farming.
OFT-7	Assessment of effects of probiotics on the survival and growth of IMC under polyculture system
OFT-8	Assessment of Efficacy of some management practices against Epizootic Ulcerative Syndrome (EUS) of IMC
OFT-9	Assessment of different technologies of Integrated Nutrient Management in Chickpea.

B) FRONT LINE DEMONSTRATION:

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Kharif Paddy	Integrated Crop Management	Introduction of var. CR Dhan 203 for medium-low land+ Soil application of <i>T. viridie</i>	10	2
		Introduction of var. CR Dhan 206 medium-low land+ Soil application of <i>T. viridie</i>	10	2
		Introduction of var. Ajit medium land+ Soil application of <i>T. viridie</i>	10	2
		Introduction of var. GB 3 medium land+ Soil application of <i>T. viridie</i>	50	7
		Introduction of var. GB-1 medium land+ Soil application of <i>T. viridie</i>	20	3
Boro Paddy	Water Management	Pusa hydrogel application at the time land preparation		
Wheat	Integrated Crop Management	Introduction of var. HD 2967 + Soil application of <i>T. viridie</i>	10	1.5

2. Oilseed

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Mustard	Integrated crop management	Var. NRCHB-101 + S soil application+ B spray @ 0.25% twice	50	9
Mustard	Integrated crop management	Introduction of PM-30 + soil application of B & S + 2 spraying of B	145	31
Groundnut	Integrated crop management	Variety- TAG 24 + Trichodarma viridi(for seed treatment) Trichodarma viridi and Psudomonas for Soil application, S dust and B.	30	10
Sesame	Integrated crop management	Variety- Savitri+ Trichodarma viridi(for seed treatment and soil application+ Azotobactor, PSB, S dust and B	65	10

3. Pulse

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Lentil	Integrated crop management	Introduction of var. PL 8 +Micronutrient+ Soil application of <i>T. viridie</i>	20	3
Lentil		Introduction of var. Pusa Ageti +Micronutrient+ Soil application of <i>T. viridie</i>	10	1.5
Chickpea		Introduction of var. RVG 203+ Micronutrient + Soil application of <i>T. viridie</i>	30	4
Chickpea		Introduction of var. RVG 203 + Micronutrient + Soil application of <i>T. viridie</i>	10	1.5

Lentil	Integrated Disease Management	Seed treatment with Carboxin + Thiram @2.5 gm/kg seed followed by foliar application of Trichoderma viridae + Pseudomonas fluorescens @ 5+5 ml/litre water at the initiation of disease.	61	5
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4. Vegetable

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Turmeric	Nursery bed management	Raising healthy saplings/seedlings through single eye-budded rhizome for reducing cost of cultivation	60	3
Kharif Onion	Integrated crop management	Scientific raising of seedlings and integrated disease pest management for lowering incidence of Purple blotch	16	1
Summer Tomato	Off season vegetable	Use of plug trays for production of quality seedlings.	8	0.40
Elephant Foot Yam	Low volume high value crop	Variety Kavour + nutrient management	8	0.48
Chilli	Integrated pest management	Scientific raising of seedlings and integrated pest management for lowering incidence of little leaf	4	1.5
Cucumber	Integrated pest Management	Installation of Cue-Lure trap at the time of fruit initiation	16	1
Bitter gourd		Installation of Cue-Lure trap at the time of fruit initiation	16	2
Pointed Gourd		Installation of Cue-Lure trap at the time of first fruit initiation	22	2
Ridge Gourd		Installation of Cue-Lure trap at the time of first fruit initiation	9	1

5. Fruits

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Mango	Integrated disease management	Installation of Methyl Eugenol trap at the time of Post buttoning stage of mango	57	6

6. Medicinal Plant

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Ekangi	Integrated disease management	Improved cultivation technology for lowering disease incidence and sustainable production	3	1

7. Fodder Crop

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Hybrid Napier	Fodder Production	Hybrid napier cutting(2-3 nodes) @ (260-270) cutting/katha)+ STB Nutrient application	15	1
Cowpea (F4/F5)	Fodder Production	Variety- F4/F5 @ (260 gm seeds /katha) + STB Nutrient application	15	1
Berseem	Fodder Production	Variety- JB- ½ @ 150 gm seeds/katha + STB Nutrient application	15	1

9. Fishery

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)
Composite Fish culture	Aquatic Environment Management	Application of lime at regular interval of one month	28	8.4

Composite Fish culture	Production Enhancement	Stocking of stunted growth fingerling	26	11.47
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10. Animal Science

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (Ha)
Khaki Campbell	Duck Farming	Khaki Campbell breed promotion for dual purpose (Egg & Meat Production)	30	300 Ducks (10 duck/farmer)
			30	300 Ducks (10 duck/farmer)
Urea + molasses	Nutrient management for livestock	Urea + Molasses feeding during scarcity of fodder	50	

C) Training:

Farmers and Farm Women (On Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Crop Production	7	26	7	268	67	10	77	5	0	5	33	17	350
Horticulture	3	44	9	53	24	1	25	2	0	2	70	10	80
Soil Health and Fert. Mgt.	4	10	0	102	33	0	33	4	1	5	13	1	140
Livestock Prodn and Mgt.													
Home Science/Women empowerment													
Agril. Engineering													
Plant Protection													
Fisheries	1	19	0	19	3	0	3	3	0	3	25	0	25
Production of Input at site													
Capacity Building and Group Dynamics													
Agro forestry													
Total	15	42	16	44	12	11	13	1	1	15	56	28	595
		6		2	7		8	4			7		

Farmers and Farm Women (On Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Crop Production	16	363	13	376	11	15	12	6	0	6	482	28	510
Horticulture	12	202	39	241	63	10	73	11	0	11	276	49	325
Soil Health and Fert. Mgt.	12	268	0	268	77	0	77	21	4	25	366	4	370
Livestock Prodn and Mgt.	17	237	60	297	12	30	15	48	2	72	408	114	522
Home Science/Women empowerment	4	0	80	80	0	30	30	0	1	10	0	120	120
Agril. Engineering													
Plant Protection	15	274	0	274	14	0	14	70	0	70	490	0	490
Fisheries	14	286	0	286	12	0	12	49	8	57	457	8	465
Production of Input at site													
Capacity Building and Group Dynamics													
Agro forestry													
Total	90	196	21	218	73	90	82	22	5	27	293	35	329
		8	7	5	8		8	9	0	9	5	7	2
G. Total (PF-On+Off)	105	239	23	262	86	10	96	24	5	29	350	38	388
		4	3	7	5	1	6	3	1	4	2	5	7

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Fish harvest and processing technology	3	38	28	56	18	8	26	3	5	8	59	31	90
Fry and fingerling rearing													
Others	11	115	55	170	70	20	90	9	6	15	199	76	275
Total (RY-On + Off)	34	362	182	534	212	67	283	30	22	52	609	256	865

Extension Personnel (On + Off campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops													
Integrated Pest Management	1	14	2	16	2	1	3	1	0	1	17	3	20
Integrated Nutrient management	1	12	3	15	2	1	3	1	1	2	15	5	20
Rejuvenation of old orchards	1	12	3	15	2	1	3	1	1	2	15	5	20
Protected cultivation technology	1	14	2	16	2	1	3	1	0	1	17	3	20
Production and use of organic inputs													
Care and maintenance of farm machinery and implements													
Gender mainstreaming through SHGs	1	0	11	11	0	5	5	0	4	4	0	20	20
Formation and Management of SHGs	1	12	3	15	2	1	3	1	1	2	15	5	20
Women and Child care													
Low cost and nutrient efficient diet designing													
Group Dynamics and farmers organization	1	12	3	15	2	1	3	1	1	2	15	5	20

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Information networking among farmers													
Capacity building for ICT application													
Management in farm animals	1	14	2	16	2	1	3	1	0	1	17	3	20
Livestock feed and fodder production	1	12	3	15	2	1	3	1	1	2	15	5	20
Household food security													
Other	3	38	8	46	6	3	9	3	2	5	47	13	60
Total EF (On + Off)	12	140	40	180	22	16	38	11	11	22	173	67	240

Grand Total (PF + RY + EF)	151	2896	455	3341	1099	184	1287	284	84	368	4284	708	4
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Extension Activities including activities of FLD Programme

Activities/ Sub-activities	No. of activities proposed	Farmers			Extension Officials				Total		
		M	F	T	SC/ST (% of total)	M	F	T	M	F	T
Field Day	25	600	75	675	12	12	8	20	612	83	69
KisanMela	1	440 0	1800	6200	15	22	8	30	4422	180 8	623
KisanGhosthi	1	20	4	24	11	2	0	2	22	4	26
Exhibition	2	175	22	197	14	4	2	6	179	24	20
Film Show	5	122	45	167	12	3	1	4	125	46	17
Method Demonstrations	4	125	20	145	11	2	1	3	127	21	14
Farmers Seminar	2	75	0	75	10	1	0	1	76	0	76
Workshop	2	80	0	80	11	0	0	0	80	0	80
Group meetings	8	110	40	150	9	2	2	4	112	42	15
Lectures delivered as resource persons	45	495	200	695	20	40	22	62	535	222	75
Advisory Services	310	510	80	590	15	0	0	0	510	80	59
Scientific visit to farmers field	42	410	120	530	12	0	0	0	410	120	53
Farmers visit to KVK	220	500	50	550	15	0	0	0	500	50	55
Diagnostic visits	8	50	2	52	14	0	0	0	50	2	52
Exposure visits	14	250	60	310	13	6	2	8	256	62	31
Soil health Camp	4	180	0	180	11	2	2	4	182	2	18
Animal Health Camp	12	420	50	470	10	3	2	5	423	52	47
Soil test campaigns	2	100	0	100	9	2	2	4	102	2	10

Farm Science Club Conveners meet	2	32	0	32	9	2	0	2	34	0	34
Self Help Group Conveners meetings	4	0	70	70	13	2	2	4	2	72	74
MahilaMandals Conveners meetings	1	0	20	20	15	0	1	1	0	21	21
Celebration of important days (specify)	12	380	70	450	12	2	3	5	382	73	455
Sankalp Se Siddhi	0	0	0	0	0	0	0	0	0	0	0
Swatchta Hi Sewa	5	75	15	90	10	1	1	2	76	16	92
MahilaKisanDiwas	1	0	25	25	0	0	0	0	0	25	25
Total	732	910	2768	1187	283	108	59	167	921	282	1207

Other extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	<p>Scientific cultivation of Stevia and its management</p> <p>Scientific cultivation of Early Cauliflower and its proper management open field condition</p> <p>Cultivation and disease-pest management of Cauliflower in field condition</p> <p>Scientific cultivation of Stevia and its management</p> <p>Scientific cultivation of Early Cauliflower and its proper management open field condition</p> <p>Cultivation and disease-pest management of Cauliflower in field condition</p> <p>Identification, symptoms of damage and integrated management of invasive fall armyworm in maze. Agriculture & Food: E-Newsletter, 2(7):30474.</p> <p>Strengthening diversified spice cultivation of turmeric through harvesting, value addition and processing</p> <p>Precaution and preventive measures taken against heavy rains in vegetables cultivation.</p> <p>Commercial cultivation of winter season flowers and its management</p> <p>Women empowerment through Kitchen garden</p> <p>Winter flower cultivation in pots and its management</p> <p>Preparation of mango jam with stevia</p> <p>Problems of kharif onion cultivation and its remedies</p> <p>Kitchen garden</p> <p>Zoonosis o janasyastha somosya” Published on Anandabazar Patrika 13/07/2020</p>
Radio talks	<ol style="list-style-type: none"> i. Scientific management of Dairy for Sustainable Milk Prod. ii. Winter Season flowers and their management iii. Interactive session with farmers

	iv. Apiculture as an entrepreneurial activity
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Seed and planting material production at instructional farm (Crops / Enterprises)

Name of the Crop / Enterprise	Variety / Type	Period From Jan. 2020 to Dec. 2020	Area (ha.)	Type of Produce	Details of Production (kg)
Kh-Paddy	Muktashree	July 20-Nov 20	0.13	Seed (F)	500
	Swarna Shraya	July 20-Nov 20	0.13	Seed (F)	390
	Uttar sona	July 20-Nov 20	0.13	Seed (F)	680
	GB-1	July 20-Nov 20	0.13	Seed (F)	600
	GB-3	July 20-Nov 20	0.13	Seed (F)	120
	Ajit	July 20-Nov 20	0.13	Seed(F)	600
	IET 4786	July 20-Nov 20	0.13	Seed (TL)	420
	Pusa Basmati	July 20-Nov 20	0.13	Seed (F)	500
	Kalabhat	July 20-Nov 20	0.06	Seed (TL)	330
Total Kh-paddy			1.1		4140
Wheat	HD 2967	Dec 19 - April 20	0.39	Seed (F)	1500
Total cereals			1.49		5640
Mustard	PM-30	Nov19- Mar 20	0.13	Seed (F)	70
	PM-25	Nov 19 - March 20	0.13	Seed (F)	60
	PM-28	Nov 19 - March 20	0.13	Seed (F)	152
Total Mustard			0.39		282

Sesame	Sabitri	Feb 20 – May 20	0.13	Seed (F)	65
	Suprava	Feb 20 – May 20	0.33	Seed (F)	85
Total Sesame			3.44		150
Total Oil seeds			3.83		
Lentil	WBL-77	Nov 19 – March 20	0.26	Seed (F)	82
	PL- 8	Nov 19 – March 20	0.13	Seed (F)	15
	KL-320	Nov 19 – March 20	0.13	Seed (F)	41
Total Lentil			0.52		138
Moong	Bireswar (WBM-4-34-1-1)	March to July 2020	0.35	Seed (F)	34
	Virat	July 20-Nov 20	0.35	Seed (F)	60
Total Moong			0.70		94
Gram	Ujjal	Nov 19 - March 20	0.13	Seed (F)	40
	Anuradha	Nov 19 -March 20	0.26	Seed (F)	120
	RVG 202	Nov 19 - March 20	0.13	Seed (F)	60
	RVG 203	Nov 19 - March 20	0.13	Seed (F)	35
Total Gram			0.65		255
Lathyrus	Ratan	Nov 19 - March 20	0.26	Seed (F)	209
Total Pulses			2.13		696

Name of the Crop / Enterprise	Variety / Type	Period From Jan. 2020 to Dec. 2020	Area (ha.)	Type of Produce	Details of Production (kg)
Cauliflower	PAN-1008	July-October		Seedling	4000
Coloured Cauliflower	Carotina, Valentina	Oct- Nov.		Seedling	400
Cabbage	Sonara-8989	July-October		Seedling	4300
Red Cabbage	Jewel	Oct- Nov.		Seedling	120
Tomato	TO-3038	Sept.-Oct.		Seedling	5100
Brinjal	OMAXE	Fab.-March		Seedling	3400
Carrot	Gent Next	Oct.-Nov.		Seedling	3200
Broccoli	Green Magic	Oct.-Nov.		Seedling	2600
KnolKhol	Green, Purple	Oct.-Nov.		Seedling	210
Lettuce	Hybrid	Oct.-Nov.		Seedling	40
Cherry tomato	Hybrid	Oct.-Nov.		Seedling	2700
Capsicum	Hybrid	Oct.-Nov.		Seedling	3100
Chilli	Bullet	Oct.-Nov.		Seedling	5200
Onion	Sukhsagar	Oct.-Nov.		Seedling	1600
Chrysanthemum	Local	Oct.-Nov.		Seedling	800
Marigold	African Giant	Oct.-Nov.		Seedling	950
Mango	Himsagar	June-July		Sapling	50
Litchi	Bombai	June-July		Sapling	90
Stevia	Suhigh A2	Round the year		Seedling	7800
Neem	Local	June-July		Sapling	200
Dragon Fruit	Pink flesh	June-July		Sapling	400
Passion Fruit	Local	June-July		Seedling	120
Black Pepper	Local	June-July		Seedling	150
<i>Sesbania grandiflora</i>	White colour flower	June-July		Seedling	100

Bougainvillea	Different colour	Feb. - March		Cuttings	125
Strawberry	Winter dawn	Feb. - March		Seedling	300
Total					47055
Turmeric	Saguna	Mar.-April	0.13	Rhizome	200
Ginger	Nadia	Mar.-April	0.13	Rhizome	150
EFY	Kavur	Mar.-April	0.13	Rhizome	120
Ekangi	Local	Mar.-April	0.13	Rhizome	600
Onion (Kharif)	Agri found Dark Red	June-July	0.13	Bulb	3000
Garlic	Local	Nov-Dec	0.13	Bulb	1000

Seed and planting material production at village (Crops / Enterprises)

Name of the Crop / Enterprise	Variety / Type	Period From Jan. 2020 to Dec. 20	Area (ha.)	Type of Produce	Details of Production (kg)
Kh-Paddy	GB-3	July 20-Nov 20	1.06	Seed (F)	3200
	GB-3	July 20-Nov 20	0.52	Seed (C)	774
	BidhanSuruchi	July 20-Nov 20	0.52	Seed (F)	1484
	GB-1	July 20-Nov 20	0.50	Seed (F)	495
	BB-11	July 20-Nov 20	2.39	Seed (TL)	6744
Total Kharif Paddy			4.99		12697
Mustard	PM-30	Nov 19– Mar 20	9.1	Seed (C)	9500
	YSH-401	Nov 19 – Mar 20	3.90	Seed (C)	1548
	NRCHB-101	Nov 19 – Mar20	8.58	Seed (C)	4651
Total Mustard			21.58		15699
Lentil	PusaAgeti	Nov 19 – Mar 20	1.30	Seed (C)	1250
	WBL-77	Nov 19 – Mar 20	0.26	Seed (C)	3876
Total Lentil			1.56		5126
Gram	RVG 202	Nov 19 - Mar 20	0.13	Seed (F)	60
	RVG 203	Nov 19 to Mar 20	0.13	Seed (F)	35
Total Gram			0.26		95

Name of the Crop / Enterprise	Variety / Type	Period from Jan. 2020 to Dec. 20	Area (ha.)	Type of Produce	Details of Production (kg)
Rabi Onion	Sukhsagar	October- November	0.78	Seed	6

Kharif onion	Agrifound Dark Red	June-July	1.0	Seed	10
Ekangi	Local	Mar.-April	0.39	Rhizome	600
Summer Tomato	Rishab	Jan-Feb	0.13	Seed	60
Black Cumin	Local	Nov. Dec.	0.25	Seed	4
Stevia	Suhigh A2	June-July		Seedling	11000
Turmeric	Saguna	Mar.-April	1.04	Rhizome	20000
Ginger	Nadia	Mar.-April	0.13	Rhizome	150
EFY	Kavur	Mar.-April	0.13	Rhizome	120
Onion (Kharif)	Agri found Dark Red	June-July	0.13	Bulb	3000
Garlic	Local	Nov-Dec	0.13	Bulb	1000
Pointed Gourd	Local	Feb- March	0.13	Cuttings/ vines	8000
Total :					43950

Production of Bio-Products

Name of product	Quantity (Kg)	Value (Rs.)	No. of Farmers benefitted							
			SC		ST		Other		Total	
			M	F	M	F	M	F	M	F
Bio-fertilizers (Vermicompost)	7200	72000	27	7	23	9	45	5	95	21
Bio-pesticide										
Bio-fungicide (Trichoderma Viride)	150	30000	18	2	8	1	35	0	61	3
Bio-agents										
Trichogramma chilonis	50 cards	10000	10	0	0	0	2	0	12	0
Others, please specify.										
Mushroom spwan	250	17500	19	2	12	1	37	22	68	25
Total	7600/50	119500	74	11	43	11	19	27	236	49

Dr. Sujan Biswas

Senior Scientist and Head

