

ശാസ്ത്രപഥം -2020

കമ്പളത്ത് ശങ്കപിള്ള മെമ്മോറിയൽ ദേവസ്വം ബോർഡ് കോളേജ് ശാസ്താംകോട്ട

ജന്തവരി 25, 26, 27

(സമഗ്ര ശിക്ഷ– കേരളം, കേരള ഹയർസെക്ക റി വിദ്യാഭ്യാസ വകുപ്പും കോളേജ് വിദ്യാഭ്യാസ വകുപ്പുമായി സഹകരിച്ചു നടത്തുന്ന റെസിഡൻഷ്യൽ ശാസ്ത്ര ക്യാമ്പ്)

Science Camp

Report on

SHASTHRAPADHAM -2020

Science camp

conducted at K.S.M.D.B. College, Sasthamcotta on 25th 26th and 27th of January 2020

Report By College Coordinator,

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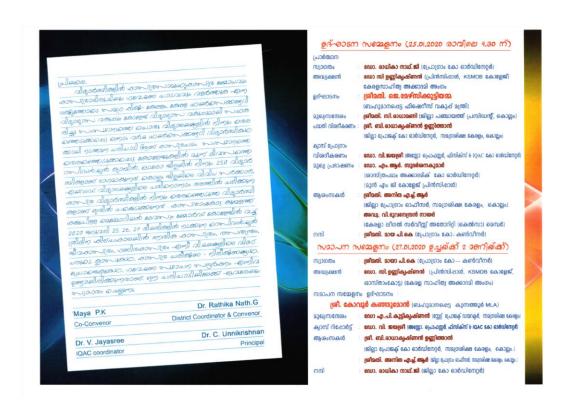
Report on Shasthrapadham Science Camp (Samagrashiksha Kerala) conducted at K.S.M.D.B. College, Sasthamcotta

on 25th 26th and 27th of January 2020 by College coordinator, Dr. Rathika Nath G.

The Sasthrapadham project launched by SSA- Kerala in association with Samagrashiksha is aimed at providing a three day science camp for 100 selected students (of standard 11th) from Government and Aided Higher Secondary Schools of Kollam district. We are extremely proud for being one of the venues for hosting the function.

The programme was organized in such a way that there were both theory and practical classes. Theory classes were on subjects like career development, recent advances in sciences, forensic sciences, medicinal sciences etc. Practical classes were on hands on training on Chemistry, Physics, Botany, Zoology and Mathematics. Excellent resource persons were selected for lecture sessions from and outside the College and science labs were arranged for demonstration classes by the College students under the direction of teachers.





Day 1 (Saturday, 25-01-2020)

The registration of students started at 9 am and the total strength of participants registered was 18 (8 boys and 10 girls). All participants were provided a kit consisting of file, notebook and pen.

The Working inauguration function started at 10.00 am on 25 th of January 2020 and the venue was digital seminar hall. The ceremony was chaired by the College principal Dr. C. Unnikrishnan, who expressed his happiness in hosting the function. Radhamony, the District Panchayat President of Kollam inaugurated the working of the Dr. M.R. Sudharshanakumar, former principal of MG College, Academic coordinator of the Sasthrapadam project, who is considered as a well known researcher in the field of crystal growth and complexes was also present and delivered the key note Welcome speech was delivered by Dr. Rathika Nath G., the programme address. coordinator. Dr. M.R. Sudharshanakumar spoke on the importance of nurturing scientific temper among students during his inaugural speech. He also interacted with the student B. Radhakrishnan Unnithan, District Project Coordinator of participants. Shri. Kollam explained about the Sasthrapadham project. Samagrashiksha, The IQAC

coordinator of the College, Dr. V. Jayasree proposed vote of thanks for the inaugural session.

The inaugural session ended at 11.30 am. After a tea break, the first session by Dr. M.R. Sudharshanakumar on Periodic Table and history of elements took place. The session ended at 13.30 pm. Lunch was provided at the college canteen.

After Lunch, second session was conducted as Science Lab visit. Students were then grouped and were managed by 5 different departments- Physics, Chemistry, Botany, Zoology and Mathematics. The sessions were handled by faculty attached to the individual departments. M.Sc and Research Students acted as Lab Assistants Tea and snacks were provided during the session.

The third session was handled by Dr. S. Suresh Babu, Head and Scientist SF, Space Physics Laboratory, VSSC, Trivandrum and the topic was "Research in Space physics". He is a former Shanti Swaroop Bhatnagar Prize winner (Indian Nobel Prize).

The fourth session was continuation of Lab Experiments & the sessions continued till 6 pm.

The fifth session was handled by Mr. Doney Kurien, Assistant Professor in Mathematics, Government College, Kariavattom.

The Sixth session was a Science Quiz handled by Dr. G.R. Remya, Assistant professor in Physics.

The first day's programme came to an end at 8.30 pm. Dinner was arranged at the mess hall of the College. The NSS officer and member of faculty of the College, Mr. Aathman arranged for the accommodation of boy students in the class rooms. 10 mentors (Degree and PG students (boys)) stayed with the participants during night. Girls students were accommodated at the college hostel and Dr. Rathika Nath and Dr. V. Jayasree stayed with them. The accommodation was provided in College hostel under concessional rates.







































Day 2 (Sunday, 26-01-2020)

The second day started with a break fast. Then the students were taken for a nature walk along the ores of Sasthamcotta fresh water lake. The students immensely enjoyed the tryst with nature.

The participants enthusiastically participated in the Republic Day celebrations in the College.

The seventh session was handled by Dr. Mani Sankar Babu, Assistant Professor in Botany, University College, Trivandrum and the Topic was "Research in Cancer Biology".

The formal inauguration of the camp was then conducted. It was certainly a privilege to have Mrs. Mercy Kutty Amma, Honorable Minister of Fisheries, Cashew, Port etc to formally inaugurate the camp on the next day of starting of camp, that is 26th of January 2020. She came to the camp inspite of her hectic programmes on the republic day.











The second technical session (8th session) for the day was handled by Dr. Manomohan Antony, Assistant Professor of the Department of Zoology, University College, Trivandrum. The topic was "Environmental Protection- What Students need to Know", and the session started at 11.30 am and ended at 13.30 pm. Lunch was provided. The 9th session was handled by Dr. G. Ajayakumar, Department of Chemistry, Government College for Women, Trivandrum and was on "Career Opportunities in Science" from 14.30 pm to 16.00 pm. All the sessions had interactive time at the end. The last lecture session (10th session) was handled by Dr. K.Rajesh, Assistant Professor in Chemistry, University College, Trivandrum started after a tea break at 3.30 pm. The topic of the session was "An introduction to Chemico-Legal Examination" which ended at 18.00 pm. Then an Yoga session was conducted by Dr. Sreegith TG, Assistant Professor in Sanskrit.

The second day's programme came to an end at 8.30 pm. Dinner was arranged at the mess hall of the College.

















Day 3 (Monday, 27-01-2020)

The day 3 sessions started at 8.30 am with travel for R&D visit. Break fast was provided in the canteen before travel to the CPCRI Lab and Research Institute, Kayamkulam. The group reached CPCRI Laboratary and Technical Division at 10 am. The visit to various laboratories extended upto 12 noon. The students were given detailed explanation about the working and function of various Sophisticated equipments and field work by the CPCRI team.

A heavy lunch was provided at college canteen after the team arrived back at around 1.30 pm.



Feed back forms were issued and collected at 2.00 pm. The valedictory function was conducted between 2.30 pm and 04.00 pm. The function was presided over by Dr. C. Unnikrishnan, Principal of the college and Kerala Sahitya Academy member. IQAC coordinator of the college, Dr. V. Jayasree welcomed the gathering. Principal, inaugurated the function and gave away certificates. Smt Maya P K., Programme Co Convenor welcomed the gathering. Report of the camp was delivered by Dr. V. Jayasree, IQAC coordinator. Certificates and TA @Rs 200 per participant were given away during the function. Parents also attended the function and tea and snacks were also provided. The vote of thanks was proposed by Dr. Rathika Nath G, coordinator of the programme. The students were handed over to their parents after the valedictory function. Both inaugural session and valedictory session were covered by the media.















. The total amount earmarked by Samagrashiksha authorities for the Science camp programme was Rupees Two lakh Twenty thousand five hundered (Rs 2,48,000/-). The SSA sanctioned an amount of Rupees 1,98,000/- (Rupees One lakh Ninty eight thousand only) as advance for the programme. It was drawn on 25th of January 2020. Though 60 participants were supposed to participate, only 18 students actually attended the event. An amount of One lakh fifty seven thousand four hundred and ninty seven (Rs 1,57,497/-) was spent for the programme under various head. An amount of Rs 40503 (Rupees forty thousand five hundred and three was payed back to the SSA.

Statement of Expenditure

KSM DB College Sasthamcotta

Consolidated statement of expenditure with respect the conduct of Sasthrapadham Science camp -2020 from 25-01-20 to 27-01-20

					Actual
					amount spent
					limited to
			Actual	Amount	amount
SI			Amount	sanctioned for	sanctioned
NO	Voucher nos	Head	spent	head	for the head
1	1	Student's TA	3600	12000	3600
2	2 to 10	Stay, Hall Rent, Hall Arrangements	11965	25000	11965
3	11	Food	37315	75000	37315
		Honorarium for programme			
4	12	coordinator	6000	6000	6000
5	13 to 21	Honorarium for Resource persons	18000	24000	18000
		Honorarium for Lab Assistant/Training			
6	22	assistants	12500	12000	12000
7	23 to 24	Lab Setting	6345	20000	6345
		Printing, Stationary, Publicity, R&D			
		visit Expenses, Documentation and			
8	25 to 38	other organising Expenses	40286	40000	40000
9	39	Honorarium for mentors	9000	9000	9000
10	40 to 47	Resource Person TA/ DA	13272	25000	13272
		Total	158283	248000	157497

Total amount sanctioned (Rs)

Actual expenditure (Rs)

Total amount paid as advance (Rs)

Expenditure limited to sanctioned
amount

157497

Unused amount payed back at SSA

Kollam (Rs)

248000

158283

198000

157497

40503

Acknowledgements:-

We take this opportunity to congratulate the state government and the educational minister for their projects aimed at promoting Science awareness among students.

It is with sincere gratitude that we thank Dr. A.P. Kuttikrishnan, State Project Director of Samagra Siksha, Kerala for providing us with a wonderful experience and also for motivating the students during his visit to the college. We express our sincere thanks to Shri. B. Radhakrishnan Unnithan, District Project Coordinator of Samagrashiksha for constant encouragement and support for the successful conduct of the programme. We express our gratitude to Mrs Anitha H R. District Programme officer, Samagra Siksha, Kollam, for helping us immensely in executing the programme smoothly.

We are also indebted to the DDE Kollam, for her support.

The constant encouragement and support rendered by the College Principal, Dr. C. Unnikrishnan was the most important factor which made this event a huge success.

Thanks are due to the Heads of departments- Prof.S.Leela, Prof. K. Lisy, Dr. P.Geethakrishnan Nair and Dr. Mini Chandran C., and members of faculty (both teaching and Non teaching) of all science departments as well as the UG and PG students of our college. There were 10 student menters and also many student volunteers from various science departments, whose dedication and sincerity made this event happen

Thanks to all external and internal resource persons for making the programme a great success. Special thanks are due to internal resource persons, Dr. Preetha G Prasad, Dr. Remya G R, Dr. Geetha Krishnan Nair, Ms Neenu, Dr. Binusree Jayan, Dr. Shelma R and Dr. Sreegith for supporting and handling the lab sessions and making them a success.

We also acknowledge with gratitude the support rendered by the College Canteen and the hostel authorities for providing hospitality. Special thanks are due for Mr. Sunil, Mr. Sachin and Smt Leela for housekeeping and general attendership for the whole programme.

I find no words to acknowledge the support rendered by the IQAC coordinator of our College and my dear friend, Dr. V. Jayasree who was with me throughout the programme and rendered help in every matters.

I greatly acknowledge the indebted help from my dear friends, Prof. Maya P.K. (the Programme Co-convenor) and her family.

The enthusiastic and vibrant team of students that we had as participants was the most important factor. On an analysis of the feedback, we felt immensely happy that our effort was not in vain. We acknowledge the support rendered by all the parents of participants.

Dr. Rathika Nath GShasthrapadham College Coordinator
KSM DB college, Sasthamcotta.

Dr. C. UnnikrishnanPrincipal
KSM DB College, Sasthamcotta

Annexure 1 Brochure

PROGRAMME SCHEDULE

SATURDAY, 25-01-2020 (1ST DAY)

09.00 am to 10.00 am : Registration	: Registration
10.00 am to 11.00 am	: Inaugural Session
11.00 am to 11.15 am : Tea Break	: Tea Break
11.15 am to 12.30 pm	11.15 am to 12.30 pm; 1st session- Periodical table and History of elements
Resource Person	: Dr. M.R. Sudarsana Kumar (Principal Rtd., M.G. College, TVPM)
12.30 pm to 01.00 pm	: Lunch break
01.00 pm to 02.00 pm	: Session 2 - Lab Visit
02.00 pm to 03.00 pm	: Session 3 - Research in Space physics
Resource Person	Dr. S. Suresh Babu (Head & Scientist SF

Space Physics Laboratory, V.S.S.C, TVPM)

Dr. G.R.Remya (Asst. Prof. in Physics, KSM DB college, Sasthamcotta) Session 5 - Mathematics- The Pulse of life Shri. Doney Kurien (Assistant Prof. in Mathematics Shanti Swarup Bhatnagar Prize winner (2017) Government College, Kariavattom) Session 6 - Science Quiz Session 4 - Lab visit Cultural activities Tea Break 03.00 pm to 03.15 am : 03.15 pm to 04.15 pm : 04.15 pm : 05.15 pm to 06.15 pm : 06.30 pm to 08.30 pm Resource Person Conducted by 08.30 pm

SUNDAY 26-01-2020 (2ND DAY)

NOO	
07.00 am to 08.00 am	: Nature walk (A visit to Sasthamcotta fresh water lake).
08.00 am to 08.30 am	: Break fast
08.30 am to 09.30 am	: Republic Day celebrations
10.00 am to 11.15 am	Session 7 - Research in Cancer Biology
Resource Person	: Dr. Manisankar Babu (Assistant Professor
	Department of Botany, University College, Trivandrum)
11.15 am to 11.30 am	: Tea break
11.30 am to 12.45 pm	: Session 8 - Environmental protection : What students need to know?
Resource Person	Dr. Manomohan Antony (Assistant Professor
	Department of Zoology, University College, Trivandrum)
12.45 pm to 01.30 pm	: Lunch Break
01.30 pm to 03.00 pm	: Session 9 - Career opportunities in Science
Resource Person	: Dr. Ajayakumar G (Assistant Professor in Chemistry
	Government College for Women, Thiruvananthapuram)
03.00 pm to 03.30 pm	: Tea break
03.30 pm to 05.00 pm	: Session 10 - An introduction to Chemico-legal Examination
Resource Person	: Dr. K. Rajesh (Assistant Professor, Dept. of Chemistry
	University College, Trivandrum)
06.00 pm to 08.00 pm	: Yoga for health
Resource person	: Dr. Sreegith.A (Asst. Prof. in Sanskrit, KSMDB college)

07.30 am to 08.00 am : Break fast 08.00 am to 12.30 pm : R&D visit (CPCRI Lab & Research Institute, Kayamkulam) 12.30 pm to 02.00 pm : Lunch 02.00 pm to 03.30 pm : Valedictory function.

MONDAY 27-01-2020 (3RD DAY)

Resource person 08.30 pm



Camp 1 : Science Enrichment Programme



പമ്പതി വിശദീകരണം : വിശദീകരണം മുഖ്വസന്ദേശം ക്യാമ്പ് പ്രോത്രാം അദ്ധ്യക്ഷൻ അവ്വുക്ഷൻ ഉദ്ഘാടനം നവത്തവം ംയഗവ്രേ ത്രാവതം മപ്രായെയ്യുക്ക്, ഗമവകത സ്വാചന സന്യർതനം എനിവ ഇട്ടൊലീരിക്കാന്. ഈ പരിപാടിചിള്ക്ക് - ഒവളരണ് ത്രിദിന കിലപ്പതാലമിൻ ഭനതിക കാസ്ത്രം, തസതന്ത്രം, water gontous, wornin and open - of alopeness. wasallee aakasolend eaanis easohni easeeellab azi 2020 explaid 25 26, 27 Main object recover examples to ജിവരാസ്ത്രം, ഗതിതരാസ്ത്രം തനീ വിഭഖങ്ങളിലെ വിദഗ് പഠിക്കാണ് ഭാഗമാക്ഷന്യത്. തൊല്ലം ജില്ലചിലെ വിവിധ സർത്മാൻ. എമ്സസ് വിദ്യാലെങ്ങളിലെ പരികനാണാം തരത്തിർ പഠിക്കണ ക്കൊണ് ജതീൽ ചക്കെടുക്കാണത്. കാന്പ്താംകോട കുമ്പളത്ത് on shuth eart organist, esses elegalet of miss 250 alegate contactation and all the same same algored निम्नाः राज्याव्यक्तव्यक्त क्याजकः त्यीबुष्टधान्त्यस्थीकं जीलाकं कलान pomps, sopports amos and another monogal allegating and omno omos soo es eso esesso est o sem samo en omo 00000) osmorn andaros (boyon confidence. monutonomo विवुव्हाल प्रकासक हकाह्ह्य वोष्ठवहाल प्रकासमध्ये राज्य കാന്സ്താഭിപ്പെയും ഗലേക്കെ പാടവവും വളർത്തുക എന ecopyempses may alox- conce, conce assistandor congol त्रीय्वतिमधी कश्चिक कठणातिमा अवस्त्रायुक्ताता हर्षा विद्याच्याता MJOURO 60 218/2016.

ഉദ്ഘാടന സമ്മേളനം (25.01.2020 രാവിലെ 4.30 ന്)

ഡോ. രാധികാ നാഥ്.ജി (പ്രോഗ്രാം കോ ഓർഡിനേറ്റർ)

ഡോ സി ഉണ്ണികൃഷ്ണൻ പ്രിൻസിപ്പാൾ, KSMDB കോളേജ്)

കേരളസാഹിത്യ അക്കാദമി അംഗം

(a) (DOO)

ശ്രീമതി. ജെ.മേഴ്സിക്കുട്ടിയമ്മ

(ബഹുമാനഷെട്ട ഫിഷെറീസ് വകുപ്പ് മന്ത്രി)

ശ്രീമതി. സി.രാധാമണി (ജില്ലാ പഞ്ചായത്ത് പ്രസിഡന്റ്, കൊല്ലം) ശ്രീ. ബി.രാധാകൃഷ്ണൻ ഉണ്ണിത്താൻ

(ജില്ലാ പ്രോജക് കോ ഓർഡിനേറ്റർ, സമഗ്രശിക്ഷ കേരളം, കൊല്ലം)

: **ഡോ. വി.ജയശ്രീ** (അബ്ലോ: പ്രൊഫസ്സർ, ഫിസിക്സ് & IQAC കോ ഓർഡിനേറ്റർ)

മുഖ്യ പ്രഭാഷണം : **ഡോ. എം.ആർ. സുദർശനകുമാർ**

(ശാസ്ത്രപഥം അക്കാദമിക് കോ ഓർഡിനേറ്റർ) (മുൻ എം ജി കോളേജ് പ്രിൻസിപ്പാൾ)

ശ്രീമതി. അനിത എച്ച്. ആർ ആശംസകൾ

(ജില്ലാ പ്രോഗ്രാം ഓഫീസർ, സമഗ്രശിക്ഷ കേരളം, കൊല്ലം)

(കേരളാ ലീഗൽ സർവീസ്സ് അതോറിറ്റി (കെൽസാ) മെമ്പർ)

ശ്രീമതി. മായ പി.കെ (പ്രോഗ്രാം കോ-കൺവീനർ)

അഡ്വ. വി.ഭുവനേന്ദ്രൻ നായർ

സമാപന സമേളനം (27.01.2020 ഉച്ചയ്ക്ക് 2 മനിച്ക്)

: **ശ്രീമതി. മായാ പി.കെ** പ്രോഗ്രാം കോ— കൺവീനർ)

: **ഡോ. സി.ഉണ്ണികൃഷ്ണൻ** പ്രപിൻസിപ്പാൻ, KSMDB കോളേജ്,

ശാസ്താംകോട്ട) (കേരള സാഹിത്വ അക്കാദമി അംഗം)

സമാപന സമ്മേളനം ഉദ്ഘാടനം

്ര**ി. കോവൂർ കഞ്ഞുമോൻ** (ബഹുമാനഷെട്ട കുന്നത്തൂർ MLA)

മുഖ്യസന്ദേശം : **ഡോ എ.പി.കുട്ടികൃഷ്ണൻ** സ്റ്റേറ്റ് പ്രോജക്ട് ഡയനുക്ക്, സമഗ്രശിക്ഷ കേരളം ക്യാന്ന് റിപ്പോർട്ട് : **ഡോ. വി. ജയശ്രി** (അമ്പ്പോ. പ്രൊഫസ്റ്റർ, ഫിസിക്സ് 6 IQAC കോ ഓർഡിനേറ്റർ)

: ശ്രീ. ബി.രാധാകൃഷ്ണൻ ഉണ്ണിത്താൻ ആശംസകൾ

Dr. C. Unnikrishnan

District Coordinator & Convenor

Dr. Rathika Nath.G

Principal

Dr. V. Jayasree IQAC coordinator

Co-Convenor Maya P.K

: **ശ്രീമതി. അനിത എച്ച്.ആർ** (ജില്ലാ പ്രോത്രം ഓഫീസർ, സമത്രമിക്ഷ കേരളം, കൊല്ലം.) (ജില്ലാ പ്രോജക് കോ ഓർഡിനേറ്റർ, സമഗ്രശിക്ഷ കേരളം, കൊല്ലം.)

: **ഡോ. രാധികാ നാഥ്.ജി** (ജില്ലാ കോ ഓർഡിനേറ്റർ)

ധദ്ധ

Annexure 2 List of Participants

Sasthrapadham-2020

Date - 2020 Jan- 25, 26, 27 Venue - K.S.M.D.B.College, Sasthamcotta, Kollam List of student participants

Science Camp

Sl No	Name	Name of School	
1.	Anjima K	GHSS, Sooranadau	
2. Deepthi B		Krist Raj HSS Kollam	
3.	Fathima J	GHSS, Thazhava	
4.	Sreenandana S	GHSS, Vallikkeezhu	
5.	Abhishek B	Krist Raj HSS Kollam	
6.	Amarnath V	GHSS, West Kallada, Sasthamcotta	
7.	Shonu Sunil	CVKMHSS, East Kallada	
8.	Midhun S	SBVS GHSS, Panmana	
9.	K S Narayanan	GHSS, Chavara	
10.	Deepak Das C	CVKMHSS, East Kallada	
11.	Jedidiah S George	GMHSS, Vettikkavala	
12.	Ramesh Kannan	GHSS, Sooranadau	
13.	Aswin S	GHSS, Patazhi	
14.	Vishnu V S	GHSS, Patazhi	
15.	Swathi S Warrier	GHSS, Sasthamcotta	
16.	Bhavana Ajith	GMHSS, Vettikkavala	
17.	Anfiya N GHSS, Oachira		
18.	Hridya Krishna C H	GHSS, Oachira	