

# MAR ATHANASIOS COLLEGE FOR ADVANCED STUDIES TIRUVALLA (MACFAST)

# 2020 - 2021



HOD Blosciences MACFAST <hodbio@macfast.org>

#### Fwd: SERB-Notification 3 messages

Sibu Simon <simon.sibu@gmail.com>

<hodbio@macfast.org>, jyotishkumar@macfast.org, administrator@macfast.org Wed, Nov 10, 2021 at 12:15 PM

Happy to inform you that we have a 29.61 lakh worth of research grant approved by SERB. Thank you so much for all your support. Best Regards, Sibu

--- Forwarded message -----

From: Dr. Pramod Kumar Prasad <pk.prasad@serbonline.in> Date: Wed, 10 Nov 2021 at 11:12

Subject: SERB-Notification To: <serbinfo1@gmail.com>



# Science and Engineering Research Board

(Statutory Body Established Through an Act of Parliament : SERB Act 2008) Department of Science and Technology, Government of India

### SCIENCE & ENGINEERING RESEARCH BOARD (SERB)

(Statutory Body Established Through an Act of Parliament : SERB Act 2008)

Science and Engineering Research Board 5 & 5A, Lower Ground Floor Vasant Square Mall Sector-B, Pocket-5 Vasant Kunj New Delhi - 110 070

Approval Letter

File Number: SRG/2021/001707

Dated: 10-Nov-2021

Subject: Project titled "Elucidating the molecular mechanism behind strigolactone-mediated plant root morphology modulation and exploring the resulting effect in nutrient stress adaptation.".

Dear Dr. Sibu Simon,

The project cited above has been technically approved by Science and Engineering Research Board

The committee recommended the following budget

Manpower: -> Project Associate-I - 1 Equipment Details : Rs. 680000

-> Plant Growth Chamber - 1 -> Micropipette set - 2

Consumables : Rs. 1000000 Travel Cost : As per norms

Contingencies : As per norms

Other cost: Rs. 100000 Overhead: As per norms

The final budget to be sanctioned would be based on quotations received, existing norms, funds availability etc.

Kindly follow the below steps to acknowledge the approval:

- 1. Go to www.serbonline.in through your credentials
- 2. Go to Menu --> Proposal submission --> View submitted proposals
- 3. Click on the link under Status column "Proposal Approved, Acknowledgment pending from PI"

You are requested to upload the Quotations of the approved equipment (if any), and salary structure for the project staff (including HRA, Medical Benefits, if applicable etc.) strictly within 15 days from the date of this letter so as to enable us to issue the financial sanction.

A certificate stating that any visit abroad for a period more than eight weeks would be undertaken after due permission from SERB, may also be submitted.

SERB has adopted the Scientific Social Responsibility (SSR) Policy which mandates SERB Grantees to undertake some SSR activities during their project period. You are requested to read the SSR guidelines available under SSR menu in the online portal and choose the activities according to your preference. Depending on the activity chosen, additional budget would be provided under separate head to carry out the chosen activities. It is mandatory to submit SSR details along with RTGS and other relevant documents.

Kindly upload RTGS details of the implementing institute to facilitate transfer of the fund as per the template. Kindly quote the reference number in all future correspondence. The project's reference no. SRG/2021/001707 may also be mentioned in all research communications arising from the above project.

Please note that the project starts only after it is accorded financial sanction by SERB and the date of start of the project will be the date on which your host institute receives the first instalment of funds.

Yours sincerely.

(Dr. Pramod Kumar Prasad)

Scientist-D

Email: pk.prasad@serb.gov.in

Dr. Sibu Simon

School Of Biosciences

Mar Athanasios College For Advanced Studies(MACFAST), Mar Athanasios College For Advanced Studies (macfast), Tiruvalla, Kerala, Pathanamthitta, Kerala-689101

630000 000009 640000 1000000 100000 100000 000001 10000 263900 1956000 2221800 1953000 2901900 Total (in Ra.)

File Name SN3/2021/06/707

Project Title Elicatoring the newcounternexthan behind surgolactore-involvated plant costatorities and explosing the restalting effect in mattrent attents adapt of the

Pi Name Stan Sanson

Hen-recurring (Capital Berns) Equipment

Nationappede set - 2

Nation (storth Chamber - 1 Manpower
-- Project Associate-1-1 Securiting Dems Total - Capital Head \$ 16

Scientific Social Representativy Contrapencies Consumables Other Cost Travel

General - 14 Menpower, Consumables, Travel, Contingencies, Other Cost, 55R)

General - Il Overhead Changes Tiest - Recurring Total opai of the project (rothout overnead) Total cost of the project (K+B)



### PROCEEDINGS OF THE MEMBER SECRETARY KERALA-DEVELOPMENT AND INNOVATION STRATEGIC COUNCIL

(Present : Dr. P.V. Unnikrishnan)

Sub:- Selection of Academic Institutions to Support the ODOI Programme - Sanction Accorded - Orders Issued

# KERALA-DEVELOPMENT AND INNOVATION STRATEGIC COUNCIL

No: 15/2021/KDISC

Thiruvananthapuram, Dated: 11.11.2021

- Read:- 1. GO (MS) No. 01/2020/PLG & EA (Innovation) dated 27/02/2020
  - 2. GO (MS) No. 02/2020/PLG & EA (Innovation) dated 30/06/2020
  - 3. GO (MS) No. 03/2020/PLG & EA (Innovation) dated 05/10/2020
  - 4. GO (MS) No. 04/2020/PLG & EA (Innovation) dated 04/11/2020
  - 5. GO (Rt) No: 5/2021/PLG & EA (Innovation) dated 16.09.2021

#### ORDER

Submission Government of Kerala have formed the Kerala Development and Strategic Council (K-DISC) to give a thrust to innovation in the State. The mandate of K-DISC is to identify and nurture a critical mass of innovations in the State and provide appropriate institutional linkages to the selected innovations. K-DISC aims at bringing out path-breaking strategic plans that reflect new directions in technology, product and process innovations, social shaping of technology and creating a healthy and conducive ecosystem for fostering innovations in the State.

As per the Government Orders read as 1 to 3 above, K-DISC constituted its district arms, the District Innovation Councils (DInCs) with District Panchayat Presidents as Chairpersons and District Collectors as Conveners and reconstituted them with a view to enable implementation of district level activities. As per the Government Order read as 4 above, sanction was accorded for the One District One Idea (ODOI) - MSME Innovation Clusters' programme of K-DISC. The guiding principle towards the innovation cluster approach is that Micro, Small and Medium Scale Enterprises (MSME) can play a key role in local economic growth and equitable development. A detailed description of the ODOI programme and the role of District Innovation Councils is appended as Annexure 1.

The ODOI programme will make use of the Triple Helix Model, aiming to strengthen the Academic-Industry-Government interface for implementation. This will be constituted with identified institutions and business schools, clusters finalised by the DInCs, and KDISC/ Digital University (DU). A note on the proposed model is provided as Annexure 2.

The initial step of the ODOI- MSME Innovation cluster's programme is to shortlist the clusters in each district. One hundred and fifteen (115) innovation clusters have been identified so far comprising of MSME clusters, Handicraft clusters, Handloom/ Power-loom clusters, Craft clusters and Traditional/ Service sector clusters, Farmers' Producer Organisations (FPOs), clusters that can

be projected as the identity of the district, and companies that use modern technology. The list of clusters identified district-wise is furnished as Annexure 3.

As part of mobilising the academic partners, K-DISC had invited EOIs from leading academic institutions for their association with the ODOI program. A total of one hundred and one EOIs were received. An expert committee was constituted for overseeing the process. Based on the evaluation of the criteria published in EOI, sixty-three (63) institutions were shortlisted out of the one hundred one (101) EOIs received. After careful examination of the EOI submissions, institutions were indexed based on the criteria as per EOI. Among the selected institutions, 11 belong to the Class A within the district category and 10, outside district. Similarly, 52 belong to class B within district category. The list of selected institutions is given as Annexure 4.

The expert committee had scrutinised the applications and recommended rates of contracts and reimbursements after considering the scope of work and deliverables for the said work. Students, faculty, and external experts shall be engaged to carry out the necessary work. The scope of work and deliverables have been attached as Annexure 5.

The maximum rates admissible for students' stipend and TA, and expenses for faculty and experts have been decided as follows.

SI. No.	Head	For work within districts (in Rupees)	For work outside
1	Students Stipend and TA	districts (iii Rupees)	districts (in Rupees)
- 1		285000.00	330000.00
2	Faculty expenses	F7000 00	330000.00
3		57000.00	87000.00
J	Expenses for External Experts	115000.00	130000.00
Tota	d .		130000.00
		457000.00	547000.00

The estimated duration of work and the breakup of the expenses allotted have been provided as Annexure 6.

The payment terms for the institutions shall be as follows.

- 1. 20% release on completion of training and allocation of clusters by DInC.
- 2. 50% release on submission of the draft report.
- 3. 30% release on submission of final report and audited statement.

The institutions should complete the stipulated work adhering to the estimates provided. No further payments shall be made for the work/ time spent beyond the estimated amount of days/ work. Institutions are directed to furnish a statement audited by a chartered accountant after completion of the project.

The shortlisted institutions, in agreement with the terms of engagement and deliverables, are directed to sign the MoU (as given in the EOI) with K-DISC in 10 days after issuing the order. Subsequently, cluster allocation by DInCs will be based on evaluation of baseline data, value-addition proposition, capability assessment, and presentation by the probable local clusters. It is mandatory for the selected institutions to attend the training provided by K-DISC/ DU for qualifying for cluster allotment. To- and-fro TA eligible for Class 1 officers shall be reimbursed for attending the training.

As per the Government Order read as 5 above. K-DISC has obtained sanction for its activities for the current year. Accordingly, the sanctioned outlay of the ODOI programme is Rs. 3.97 Cr. The expenditure for the ODOI programme will be met from this amount under the Head of Account 3451-00-092-92-34-03 Other Items (P).

The detailed steps to be followed by the institutions are provided below.

- 1. Signing the MoU within 10 days after issuing the order.
- 2. Entrusting principal coordinator/ faculty member for the training program.
- 3. Presentation before the District Innovation Council for allocation of cluster.
- 4. Undertaking the cluster study as per the guidelines
- 5. Submission of study report, submission of challenge applications etc
- 6. Undertaking further follow up as required.

**Member Secretary** 

Copy to:

The Executive Vice Chairperson, K-DISC
The Member Secretary, K-DISC
The Executive Director (MS), K-DISC
Heads of the selected Institutions
Persons concerned
SF/OC

Forwarded By Order

Section Office

#### One District One Idea (ODOI) Program

MSMEs represent substantive contributions to employment generation, poverty reduction and wider distribution of wealth in most developing economies. However, the potential role of MSMEs is often not realised because of problems related to their size. Individual MSMEs experience difficulties in achieving economy of scale in the purchase of inputs and small size is also a constraint on internalisation of functions. They are unable to introduce innovative improvements to products and processes to preserve their narrow profit margins. This is also due to the result of MSME isolation rather than size. Therefore, closer co-operation among MSMEs and the collaboration with academic institutions, industries promotion organisations and start-ups in their immediate environment holds the key to overcoming them. Evidence also shows that co-operative relations and joint action are more likely when enterprises operate in proximity and share business interests such as markets for products, infrastructure needs or challenging external competition. Within such groups or clusters, enterprises joint initiatives are stronger because of the critical mass of interested parties, more cost effective due to shared fixed costs and easier to co-ordinate with proximity fostering mutual knowledge and trust.

ODOI is an innovation challenge programme for manufacturing clusters, medium and micro-enterprise clusters. Innovation and technology have been identified as the primary differentiator that can take the enterprises as well as the clusters to non-linear non-incremental growth.

#### The ODOI programme aims at

- Organisation and development of clusters.
- Development of networks of MSMEs
- Development of strategic linkages between MSMEs and academic institutions interested in working with MSMEs on cluster development, promoting innovation and strategy
- Coming up with out of the box approaches to enhance production, productivity, reduce cost of production or achieve business expansion through proactive consultations with suppliers, competitors, employees, customers, research and training institutions etc
- The steps involved would be building trust, constructive dialogue among cluster actors exchange of information, identification of common and strategic objectives, agreement on a joint development strategy and systematic and coherent implementation

The programme aligns with the philosophy of digital transformation and promotes the Strengthening of Academic-Industry-Government Interface to develop problem statements and implement solutions. It is an innovation challenge for manufacturing that K-DISC will be providing seed money for the programme, it is envisaged technology support for fostering innovation. Since the innovation component and be isolated functionally from the overall programme of MSME development, K-DISC will facilitate synergies with the existing Government of Kerala and Government of India and support schemes of banks and other financial institutions. The innovation caps as applicable in conventional government schemes. It would indeed seek to mobilise resources based on bold need based disruptive plan.

The ODOI Challenge will be open to zero down on the clusters to be assisted in each district. Clusters comprising MSME clusters, Handicraft Clusters, Handloom/ Power-loom Clusters, other Traditional Industries and Service Clusters which are aggregations of household enterprises, Farmer Producers Organisations (FPOs) in the district, clusters that can be projected as the identity of the district, and companies that use modern technology, etc. will be identified by the District Core Group of ODOI to take part in the challenge. Promising clusters in each Legislative Assembly Constituency (LAC) will be asked to participate in the challenge if an academic /research centre/business school of excellence and MSME cluster /SPV show interest and aptitude and propose an action plan for an innovative programme to be undertaken within 2 years

The next phase is to help promising clusters develop innovation action plans. The transformational challenges such as resources, risk, and readiness need to be understood for creating the innovation plan. The Business Model Canvas helps identify areas for innovation in the current situation. The overall process is captured in the 3 steps:

- a. Identification of Cluster for Innovation (by Core Group)
- b. Formulating the Innovation Plan (by Core Group + Academic Institutions)
- Implementing the Innovation Plan (by Core Group + Academic Institutions + Clusters)

Role of District Innovation Council (DinC) in ODOI

The challenge is new and requires a co-ordinated effort at the district level prior to the challenge submission. The effort will be initiated by the District Innovation Council, under the leadership of the President of the District Panchayat and the

A core group under DInC has been specifically constituted to consider the expert matters of ODOI. The Core group will undertake the following consultations and activities prior to the challenge submissions.

Cluster mapping and Rapid Appraisal of field Situation.

District Level Consultations involving Direct target group, Agencies possibly involved in Cluster Development Programmes in the District for Synergy, Agencies involved in Research and Academic Support and Linkage Groups

The outcome of the above consultations will be consolidated by the core committee. Based on the cluster mapping and stakeholder consultations undertaken by the core group, DInC will recommend the MSME industry groups which will be included in the various categories based on the perceived overall impact of the clusters and relevance for integrated development of the district as indicated in the impact

### Triple Helix Model in ODOI

The programme aligns with the philosophy of digital transformation and promotes the Strengthening of Academic-Industry-Government Interface to develop problem statements and implement solutions. The model plans to link the academic institutions with clusters and come up with mechanisms for scaling, new market outreach, diversification and technology, product development etc. The program will establish linkages with international bodies and national institutions like IIT-Delhi, IIT-Madras for accelerating the MSME problem solving in innovation clusters.

The programme is an innovation challenge for manufacturing clusters and microenterprise clusters, and as a part of the programme, it is envisaged that K-DISC will be providing seed money for the innovation component and technology support for fostering innovation. Since the innovation framework cannot be isolated functionally from the overall programme of MSME development, K-DISC will facilitate synergies with the existing Government of Kerala and Government of India and support schemes of banks and other financial institutions. The innovation cluster development is totally demand driven programme and would not be limited by caps as applicable in conventional government schemes. It would indeed seek to mobilise resources based on bold need based disruptive plan.

Digital University of Kerala will be the institutional hub to guide functioning of the Community of Practices Framework for each cluster. The Digital University has extended guidance for the initial activities of cluster identification to the District Core Groups. They are also providing inputs for training of the district level functionaries and training of the academic institutions for cluster development. The process of knowledge co-creation would be driven by a model of digital innovation promotion and is centred around the innovation cycle. The community of practices approach developed to drive the innovation cycle is around the principle of academia - industry interaction. The innovation life cycle covers four areas, in loop, and are the centre of innovation, centre of competence, centre of problem solving and the centre of de-risking and scaling. Capacity building thus forms the corner stone of the knowledge society.

The Innovation Plan will be guided by the Blue Ocean Strategy of tapping into unexplored markets and customers. Activities aim at creating new value propositions and not merely incremental improvements. It will create uncontested market space, create, and capture new demand, and align the whole system of a firm's activities in

pursuit of differentiation. Such a process will raise value for the cluster and reduce costs. Through ODOI, K-DISC will put in mechanisms to share the risks involved in activities are sought to be implemented through a centralised ICT platform to be built by K-DISC.

The program will also have a road show where the institutions and experts will present their solutions to the MSME and partner institutions. Feasibility of solutions and actions required to solve the problems will be carefully studied, and then the selected institutions and experts will work with the MSMEs towards implementing the solution.

Annexure 3

### List of Innovation Clusters

SIN	o District	Manufacturing					
1	Alappuzha		Handicraft	Handloom	Others	FPO	Tota
2	Idukki	2		,	2	1	5
3	Kollam	5				3	8
4	Pathanamthitta		1	1	2	2	6
5	Thiruvananthapuram	3	1		2	1	7
6	Palakkad	2	4	5		2	
7	Thrissur		4	1	2	2	13
			4	1	2	2	9
8	Ernakulam	3	2	<del></del>	2	1	S
9	Kottayam	6	1		1	1	8
10	Kozhikode	4			2	2	11
11	Malappuram	4	1	****	1 ]	3	9
7	Kannur	2		••••	1	2	7
	Kasaragod		1	1		2	6
- 1	Wayanad				2	2	4
-			2	***	1	11	14
	TOTAL	31	21	10	18	35	115

#### Annexure 4

# List of Institutions Shortlisted

	-						1.0/13 3/10	II LIISI	ed		
	3	51. 10.	Unique ID	Institution			District			hest	Type of Institution
	1	-	1	Asian School of Busines	55		Trivandrun		deg	ree	Type of Institution
	2		2	Rajadhani Institute		05	rivandrur	n	PG		<b>Business Studies</b>
	F	+	***************************************	Engineering and Technology Kumbalath Sanku	olog	y   7	rivandrun	1	PG		Engineering Colleg
	3	1		Memorial Dewasom I College, Shasthamcotta	3oar	rd K	ollam		PG		Arts and science
,	4	5		Sree Narayana Polyteo College, Kottiyam College of Engineer		K	ollam		Diplor	ma	Diploma
1	5 	6		Perumon		Ko	llam		PG	E	Engineering College
6		7		Pathanapuram	===0	Kol	llam	[	egree	E	ngineering College
7		8		Punalur		Kol	lam	D	iplom	a D	iploma
8		9	1	Kollam Commerce		Koll	am	P	3	Ar	ts and science
9		10		oree Narayana Colle Kollam Economics		Kolla	am	PC	j	Ar	ts and science
10	-	11		KM College of Engineering	3	Kolla	am	PG	i	Eng	gineering College
11		14	- 1	armel College ngineering and Technolog	of	Alapp	ouzha	De	gree		gineering College
2		17		ACFAST Tiruvalla	ā	Patha a	namthitt	PG	12	Bus	iness Studies
3	1	8	Co	nal Jyothi Engineerin ollege	K	Cotta	yam	PG		Engi	ineering College
ļ 	2	0	Ma	rchmans Institute of Inagement Studies	K	ottay	am	PG		Busi	ness Studies
	21	1		nool of Management and siness Studies	Ko	ottay	am	PG		Busir	ness Studies
	23	3		riakose Elias College nnanam	Ко	ttaya	ım	PG	E	Engin	neering College
	27			School of Management & hnology, Pullikkanam	Idu	ıkki	E	PG	В	Busin	ess Studies
	30		Mari	ian College Kuttikkanam	Idu	kki		PG	D	ucina	ess Studies

	T				
SI.	Unique ID	institution	Dist	1	
19	31	SCMS College of Polytechni	District	High degr	ree Type of Institution
20	32	Morning Star Home Science College, Angamaly	e	Diplo	oma Diploma
21	34	Government Engines :	Ernakulam	PG	Arts and science
22	37	Ahalia School of En	1   hrica.	PG	Engineering Colleg
23	39	Government College	Palakkad	Degre	
24	40	Chittur, Palakkad	Palakkad	PG	Arts and science
25	41	College, Sreekrishnapuram	Palakkad	PG	Engineering College
26	42	College Palakkad	Palakkad	Diplom	
27	43	Palakkad Jawahar	Palakkad	PG	Arts and science
28		Engineering and Technology	Palakkad	PG	Engineering College
29	44	Management of	Palakkad	PG	Business Studies
30	49	Mercy College Palakkad Malabar Polytechnic College	Palakkad	PG	Arts and science
31	50	Kottakkal Seethi Sahib Memmorial	Malappuram	Diploma	
_	51	Polytechnic College Farook College Kozhikode	Malappuram	PG	Diploma
3	59	National Institute of	Kozhikode	PG	Arts and science
4	62	Technology Govt Polytechnic College	Kozhikode Wayanad	PG	Engineering College
5	63	Meppadi Govt Polytechnic College	Wayanad Wayanad	Diploma	Diploma
6	64	College of Engineering	Kannur	Diploma PG	p round
7 (	65	Vimal Jyothi Institute of	Kannur	PG	Engineering College
8 6	69	Lal Bahadur Shastri College	Kasargod		Business Studies Engineering College

1000	51. No.	Unique ID	institution	District		hest	T ()
	39	70	Engineering & Technology	of Ernakulam	deg	ree	Type of Institution
4	40	71	KMEA Engineering College		PG		Engineering College
4	11	72	Muchoot Institute	Ernakulam	Degr	ee	Engineering College
4	2	73	Technology & Science Toc H Institute of Science	Ernakulam e _	PG		Engineering College
4	3	74	and Technology  UKF College of Engineerin	Ernakulam	PG	1	Engineering College
)  -	1		and rechnology	Kollam	PG		Engineering College
4	-	76	Rajiv Gandhi Institute o Technology Kottayam	f Kottayam	PG	I	Engineering College
4:	-	77	SNIT Adoor	Pathanamthiti a	Degre	e E	Ingineering College
46	6	78	St Thomas College Ranni	Pathanamthitt a	PG	A	rts and science
47	7	79	Saintgits College of Engineering	Kottayam	PG	E	ngineering College
48	3	80	College of Engineering Kidangoor	Kottayam	Degree		ngineering College
49	)	82	Vidya Academy of Science & Technology	Thrissur	PG	1	gineering College
50	)	83	Sahrdaya College of Engineering & Technology	Thrissur	PG	En	gineering College
51		86	Mahaguru Institute of Technology	Alappuzha	PG	+-	gineering College
52	2	87	LBS Institute of Technology for Women	Trivandrum	PG	1	gineering College
53	3	88	Institute of Management in Kerala	Trivandrum	PG	Bus	siness Studies
54		89	College of Engineering Trivandrum	Trivandrum	PG	Eng	ineering College
55		90	Government Engineering College Barton Hill	Trivandrum	PG	Eng	ineering College
56				Trivandrum	PG	Engi	ineering College
57	9			Kottayam	PG		and science
58		95	College	Thrissur	PG	Dipl	
59	19	97	M Dasan Institute of I	Kozhikode	PG	Engi	neering College

SI. No.	Unique ID	Technology	District	Highest degree	Type of Institution
60	98	Ernad Knowledge City	Mala		
61	99	Jyothi Engineering College	Malappuram	Degree	Engineering College
	400	Rajagiri College of Social	Thrissur	PG	Engineering College
62		Sciences	Thrissur	PG	Arts and science
		Sreepathy Institute of			Arts and science
63 101	Management and	Palakkad			
	Technology		Degree	Business Studies	

#### Class A Institutions - Within their District

S I. No.	Unique ID	Institution	District
1	6	College of Engineering, Perumor	55 (HIS9)
2	11	TKM College of Engineering	
3	23	1 / 1 1245 - 1	Kollam
J	23	Mannanam Elias Colleg	Kottayam
4	40	Government Engineering College Sreekrishnapuram	Palakkad
5	43	Jawahar College of Engineering and Technology	Palakkad
6	69	Lal Bahadur Shastri College of Engineering	Kasargod
7	78	St Thomas College Ranni	Pathanamthitta
8	79	Saintgits College of Engineering	Kottayam
9	87	LBS Institute of Technology for Women	Trivandrum
10	89	College of Engineering Trivandrum	Trivandrum
11	95	Government Polytechnic College	Thrissur

#### Class A Institutions - Inter District

SI. No	Unique ID	Institution	District
1	6	College of Engineering, Perumon	Kollam
2	11	TKM College of Engineering	Kollam
3	23	Kuriakose Elias College Mannanam	Kottayam
4	40	Government Engineering College, Sreekrishnapuram	Palakkad
5	69	Lal Bahadur Shastri College of Engineering	Kasargod
6	78	St Thomas College Ranni	Pathanamthitta
7	79	Saintgits College of Engineering	Kottayam
8	87	LBS Institute of Technology for Women	Trivandrum
9	89	College of Engineering Trivandrum	Trivandrum

10	95	Government Date	
		Government Polytechnic College	This
			Thrissur

### Class B Institutions - Within their District

SI. No.	Unique ID	Institution	Dist.	
1	1	Sahrdaya College of Engineering	District	Type of institution
2	4	Technology  KMEA Engineering College	Thrissur	Engineering Colleg
2	,	Stee Marau	Ernakulam	Engineering Colleg
3	6	Economics College Kollar	m Kollam	Arts and science
4	7	Muthoot Institute of Technology (	Ernakulam	
5	8	SCMS College of Polytechnic		Engineering College
6	9	Mahaguru Institute of Technology	Ernakulam	Diploma
_		Adi Chanker	Alappuzha	Engineering College
7	10	Engineering & Technology	Ernakulam	Engineering College
8	11	UKF College of Engineering and Technology	Kollam	Engineering College
9	17	LEAD College of Management	Palakkad	Business Studies
10	18	Kumbalath Sankupillai Memorial Dewasom Board College, Shasthamcotta		Arts and science
11	19	Marian College Kuttikkanam	Idukki	Business Studies
12	20	College of Engineering Thalassery	Kannur	Engineering College
13	21	Sree Narayana College Kollam Commerce	Kollam	Arts and science
14	23	Ernad Knowledge City	Malappuram	Engineering College
15	27	Government College Chittur, Palakkad	Palakkad	Arts and science
16	30	Govt Victoria College Palakkad	Palakkad	Arts and science
17	32	Sree Narayana Polytechnic College, Kottiyam	Kollam	Diploma
18	34	SNIT Adoor	Pathanamthitta	Engineering College
19	37	Seethi Sahib Memmorial	Malappuram	Diploma

ī. T	Unique	Institution	D:	
	ID	macreación .	District	Type of institution
.0	40	Sreepathy Institute of Management and Technology	Palakkad	Business Studies
1	41	Malabar Polytechnic College Kottakkal	Malappuram	Diploma
2	43	MACFAST Tiruvalla	Pathanamthitta	Arts and science
.3	44	M Dasan Institute of Technology	Kozhikode	Engineering College
4	45	Farook College Kozhikode	Kozhikode	Arts and science
25	49	College of Engineering Kidangoor	Kottayam	Engineering College
26	50	Amal Jyothi Engineering College	Kottayam	Engineering College
27	51	St Thomas College Palai	Kottayam	Arts and science
28	59	Berchmans Institute of Management Studies	Kottayam	Business Studies
29	62	Govt Polytechnic College Meppadi	Wayanad	Diploma
30	63	Govt Polytechnic College Meenangadi	Wayanad	Diploma
31	64	Institute of Management in Kerala	Trivandrum	Business Studies
32	65	Rajadhani Institute of Engineering and Technology	Trivandrum	Engineering College
33	69	Morning Star Home Science College, Angamaly	Ernakulam	Arts and science
34	74	DC School of Management & Technology, Pullikkanam	Idukki	Business Studies
35	76	College of Engineering, Pathanapuram	Kollam	Engineering College
36	77	Government Polytechnic College Palakkad	Palakkad	Diploma 
37	7 78	Carmel College of Engineering and Technology		Engineering College
38	3 79	Mercy College Palakkad		Arts and science
30		Govt Polytechnic College Punalur		Diploma
40		Rajagiri College of Social Sciences	Thrissur	Arts and science
4		Government Engineering College Thrissur		Engineering College
4	2 87	Jyothi Engineering College		Engineering College
	3 89	Asian School of Business	Trivandrum	Business Studies

SI. No.	Unique ID	Institution	District	Type of institution
44	90	Government Engineering College Barton Hill	Trivandrum	Engineering College
45	91	Marian Engineering College	Trivandrum	Engineering College
46	93	Vimal Jyothi Institute of Management and Research	Kannur	Business Studies
47	95	Toc H Institute of Science and Technology	Ernakulam	Engineering College
48	97	School of Management and Business Studies	Kottayam	Business Studies
49	98	Rajiv Gandhi Institute of Technology Kottayam	Kottayam	Engineering College
50	99	Vidya Academy of Science & Technology	Thrissur	Engineering College
51	100	Ahalia School of Engneering and Technology, Palakkad	Palakkad	Engineering College
52	101	National Institute of Technology	Kozhíkode	Engineering College

#### Scope of work and deliverables

The scope of work for the services from the institutions will be as follows:

- 1. To continue the process of initial identification of the cluster and the initial consultations done by the core groups.
- 2. To re-assess the records of initial consultations done by the core groups to record the ODOI data sheet covering HR, structural and relational capital and addressing any gaps in understanding.
- 3. To crystalise and improve upon the consultations undertaken by the District Core Group, with the purpose of inspiring the clusters for innovation and pursuing the consultations on sustaining innovations.
- 4. To undertake a diagnostic study of the cluster and identify areas of innovation of the cluster based on the inputs obtained from the Digital University.
- 5. To identify through consultation and propose a sustainable structure for action plan implementation.
- 6. To develop the innovation action plan on the broad contours outlined in the ODOI concept note appropriately keeping in, mind the indicators for innovation.
- 7. To help the cluster team submit the necessary documentation for the innovation challenge through ICT platform being developed by ICT Academy covering the documentation indicated in 6 above along with relevant cluster particulars.
- 8. To help, guide and lead the cluster teams' presentations at the ODOI Innovation challenge and proactively interact with the evaluation team.
- 9. Prepare a costing for the institutional support necessary for executing the implementation of Innovation Action Plan and submit the same to K-DISC.
- 10. To proactively interact with the District Core Group and District Innovation Council and Digital University for successful completion of the action plan preparation and its timely submission.

#### The deliverables of the engagement are listed below.

- Cluster diagnostic study and proposal for innovation areas of cluster. 1.
- Innovation action plan for cluster. 2.
- Submission of the action plan and other requisite information for the 3. challenge.
- Presentations of the action plan as a part of the challenge. 4.
- Costing for institutional support for executing the implementation of the innovation action plan.
- Feedback and recommendation for improving the ODOI challenge and the process.

### Duration of work and breakup of expenses

The estimated duration of work shall be as follows.

ltem	Number of days	Broad applicable norms
Faculty Days	120	Two months of work covering field work supervision, supervision of desk work and finalisation of report required. Two faculty members to be allocated.
Expert Days	20	2 experts. Total days 20
Student Days	300	Two months; 5 students
Faculty Travel Days	30	Total travel days for two faculty members
Expert Travel days	10	Total travel days for experts
Student Travel Days	150	50% student time for field work

The breakup of the expenses and payment terms that shall be utilised as per the maximum admissible amount is provided below.

	Amount (in Rupees)		
ltem	Within district	Outside district	
Faculty Allowance Rate	100.00	100.00	
Faculty Travel Rate	1500.00	3000.00	
Expert allowance	5000.00	5000.00	
Expert Travel Rate	1500.00	3000.00	
Student Stipend	800.00	800.00	

	Amount (in Rupees)		
Item	Within district	Outside district	
Student Travel	300.00	500.00	