



# EVALUATION PROFORMA FOR RANKING OF AGRICULTURAL UNIVERSITIES - 2018



**TAMIL NADU Dr. J. JAYALALITHAA FISHERIES UNIVERSITY**  
**VETTAR RIVER VIEW CAMPUS**  
**NAGAPATTINAM - 611002**

Evaluation Proforma for Ranking of Agricultural Universities  
for the year 2018

Brief Profile of the University

1.	Full Name and Address of the University	:	Tamil Nadu Dr. J. Jayalalithaa Fisheries University Vettar River View Campus Nagapattinam – 611 002		
2.	Contact details of ICAR Nodal officer Name	:	Name	:	Dr. S. A. Shanmugam
			E-mail	:	ce@tnfu.ac.in
			Mobile	:	9894735180
			Landline No	:	04365 256430
3.	Number of students Passed out (2018)	:	UG	:	53 Nos.
			PG	:	14 Nos.
			Ph.D.	:	5 Nos.
4.	Faculty Position as on 01.01.2018	:	96		
			Sanctioned		In Position
					% of filled
	Colleges		160		92
	Research Centres		-		-
	AICRP		-		-
	KVKs		7		4
	Total		167		96
					60

S. No.	Name of the Funding Agency	2018-19	TOTAL
1	State funded Schemes		
a)	Plan Schemes	422270000	422270000
b)	TANII Projects (State Innovation Fund)	8140000	8140000
c)	NABARD financial assistance	186500000	186500000
2	GOI Schemes	13756179	13756179
3	ICAR Fully financed Schemes	2484020	2484020
4	ICAR Development Grant	26228811	26228811
5	ICAR KVK - Sikkal	4857000	4857000
6	NADP Schemes	85000000	85000000
7	Other Agency Schemes (Private)	3313818	3313818
8	IAMWARM	5145000	5145000
	TOTAL	757694828	757694828



**TAMIL NADU Dr. J. JAYALALITHAA FISHERIES UNIVERSITY**

Vettar River View Campus, Nagapattinam – 611 002

Tamil Nadu, India

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**Dr. A. Srinivasan, Ph.D.,**  
Registrar

**DECLARATION**

It is certified that the information provided in the proforma is correct and the responsibility of accuracy and authenticity of the data lies with the University.

It is to declare that the entire filled- in proforma was uploaded on the website of the University and it is available at [www.tnifu.ac.in](http://www.tnifu.ac.in). It is further declared that the document shall be made available till next ranking.

**Date: 06.06.2019**

*A. Srinivasan* 6/6/19

**(Signature of the Registrar)**

**Seal**

**REGISTRAR**

Tamil Nadu Dr. J. Jayalalithaa Fisheries University  
Vettar River View Campus,  
Nagapattinam - 611 002.

**EDUCATE TNJFU ELEVATE**  
**INNOVATE**

Proforma

	Parameters	Score	Score awarded
(A).	TEACHING OUTCOME (IMPACT/QUALITY WEIGHT 40% OR 40 MARKS)		
A1.	Number of students got ICAR – PG Scholarships (erstwhile JRF) during 2018/Number of UG Students passed out (List to be enclosed as Annexure A1) (Maximum 1 Mark)		
	If more than 5% of UG Students got ICAR PG Scholarships (The students who cleared the exam but not awarded ICAR PG Scholarship not to be included)	1 mark	0
A2.	Number of students got admission in Master’s Program during 2018 through ICAR entrance examination / Number of UG students passed out (List to be enclosed as Annexure A2) (Maximum 1 mark)		
	If more than 10% of UG Students got admission at Masters level through ICAR entrance examination	1 mark	1
A3.	Students performance at M.Sc Level (List to be enclosed as Annexure A3)(Maximum 2 marks)		
	If more that 5% Students got ICAR – JRF /SRF (erstwhile SRF)or equivalent (The students who cleared the exam but not awarded ICAR-JRF /SRF not to be included)	2 marks	0
A4.	Students Performance at M.Sc Level (List to be enclosed as Annexure A4) (Maximum 1 mark)		
	If more than 10% of students got admission in Ph.D through ICAR entrance examination	1 mark	0
A5.	ICAR Jawaharlal Nehru Award for Ph.D. thesis in 2018 (List to be enclosed as Annexure A5)(Maximum 2 marks)		
	If number is 1	1 mark	0
	If number is more than 1	2 marks	
A6.	Percentage of ARS selections in the disciplines offered by University against available seats advertised by ASRB during 2018 (List to be enclosed as Annexure A6) (Maximum 3 marks)		
	Up to 5 percent	1 mark	0
	More than 5 percent	3 marks	
A7.	Percentage of students qualified NET Exam in the disciplines of Agriculture and allied Sciences during 2018 (List to be enclosed as Annexure A7) (Maximum 3 marks)		
	Up to 5 percent	1 mark	
	More than 5 percent	3 marks	3
A8.	Percentage of faculty positions filled in teaching, research, extension, KVK, AICRP and at regional stations (with details of Positions filled and sanctioned cadre strength for each category) (List to be enclosed as Annexure A8) (Maximum 4 marks)		

	60% to 70%	1 mark	1
	70 % to 80%	2 marks	
	If more than 80%	4 marks	
A9.	Number if students admitted from overseas for Ph.D. during 2018 (list to be enclosed as Annexure A9) (Maximum 2 marks)		
	If number is up to 2	1 mark	0
	If it is more than 2	2 marks	
A10.	National and International awards (such as those conferred by the National Organizations like ICAR,CSIR,DBT,DST,UN,CG, Centers and Recognized National Sciences/Engineering Academics)(earned by Faculty) in 2018 (list with only top 10 awards to be enclosed as Annexure A 10)(Maximum 3 marks)		
	If Number is 1	1 mark	
	If Number is 2-4	2 marks	
	If Number is more than 4	3 marks	3
A11.	Best Institution / University Awarded by ICAR in 2018 in any filed (Proof to be enclosed as Annexure A11) (Maximum 1 mark)	1 mark	0
A 12.	Award in all India Youth Festival or All India Agri. University Sports Meet in 2018 (proof to be enclosed as Annexure A 12) (maximum 1 mark)		
	1 <sup>st</sup> 2 <sup>nd</sup> or 3 <sup>rd</sup> Position in 2018	1 mark	0
A 13.	Fellowship or Associate ship of National Science Academies (NAAS,INSA,NAS,NAMS,INAE achieved during 2018) (list not more than five to be enclosed as Annexure A13)(Maximum 2 marks)		
	Up to 1	1 mark	0
	2 or more	2 marks	
A 14.	Percentage of Faculty with Ph.D. degrees obtained from universities from outside of the state where employed (list along with proof to be enclosed as Annexure A14) (Maximum 2 marks)		
	If less than 15%	No marks	
	15 to 25 %	1 mark	1
	More than 25 %	2 marks	
A15.	Percentage of Faculty from the State other than the State in which University situated (list along with proof to be enclosed as Annexure A15) (Maximum 2 marks)		
	Less than 20%	No marks	0
	20 – 30 %	1 mark	
	More than 30 %	2 marks	

A16.	Percentage of Faculty with 3 months or more of Post doctoral/Visiting scientist experiences abroad in 2018 (Maximum 1 mark)		
	More than 3 % of faculty strength	1 mark	0
A17.	Average footfall in library (Maximum 2 marks)		
	Up to 15% of students/faculty in position visiting library daily	1 mark	
	More than 15% of students /faculty in position visiting library daily	2 marks	2
A 18.	CERA utilization in 2018 (Maximum 2 marks)		
	* CERA Utilization (number of hits/ total number of students and faculty)(to be awarded for top 10 universities) * information will be collected from DKMA, ICAR	2 marks	-
A19.	Accreditation on 01.01.2018 (by ICAR) (Copy of accreditation letter/certificate to be enclosed as Annexure A19) (Maximum 3 marks)		
	Accreditation granted for up to 2 years to the University	2 marks	
	Accreditation granted for up to 5 years to the University	3 marks	3
A 20.	Implementation of recommendation of Fifth Deans, Committee/BSMA committees (Copy of proceedings of academic Council/Board of Managements, in which decision of implementation was taken, to be enclosed as Annexure A20) (Maximum 2 marks)		
	Fifth Deans Committee/BSMA Committees recommendations partially implemented (if not implemented in all the faculties/ Colleges).	1 mark	
	Fifth Deans Committee/BSMA Committees recommendations partially fully implemented	2 marks	2

(B)	RESEARCH (WEIGHTAGE 30% OR 30 MARKS)		
B1	RESEARCH PRODUCT – (No. of research articles including review articles per faculty member having NAAS rating of over 6.0 in 2018) (List of papers along with NAAS rating 2019 to be enclosed as annxure B1). <u>List of publications below NAAS rating of 6.0 should not be made.</u> (Maximum 9 marks)		
	Less than 0.5 papers per faculty member	No marks	0
	0.6 – 1.0 papers per faculty member	3 marks	
	1.1 – 1.5 papers per faculty member	5 marks	
	1.6 - 2.0 papers per faculty member	7 marks	
	More than 2.0 papers per faculty member	9 marks	
B2.	Research Impact (Maximum 5 marks)		
	Percentage of faculty having h – index as 10 or more than 10 (to be obtained from Google Scholar)		
	If 2 to 5 Percent	1 mark	
	If 5 to 10 Percent	2 marks	2
	If 10 to 20 Percent	3 marks	
	If more than 20 Percent	5 marks	
B3.	Research Excellence		
	(i) Patents granted during 2018 (Only patents granted along with proof to be listed as Annexure B3 (i)) (Maximum 6 marks)		
	Per patent granted	2 marks (limited to 6 marks)	2
	(ii) Varieties released (Maximum 6 marks) (Varieties released by the centre/State Government and notified in Gazette to be listed (Copy of gazette notification to be enclosed as Annexure B3(ii)) or breeds/Technologies /Vaccines developed/new strains of bacteria/virus/parasite identified (Maximum 6 marks) (Appropriate proof for development and adoption of technology to be enclosed as Annexure B3 (ii)) or new farm machinery & tools developed during the year 2018 (Maximum 6 marks) (Appropriate proof for development and adoption of machinery & tools to be enclosed as Annexure B3(ii))	1 mark for each (limited to 6 marks)	6
	(iii) Funds received through external competitive grants (excluding ICAR development and KVK and AICRP grants) (Total amount) (Maximum 3 marks)		
	2-3 Crores	1 mark	
	3 to 5 Crores	2 marks	
	More than 5 Crores	3 marks	3
	(iv) If PME Cell Established and Functional (Max.1 mark)	1 mark	1

(C).	EXTENSION AND OUTREACH (WEIGHTAGE 30% OR 30 MARKS)		
C1.	KVK Awards during 2018 (Maximum 4 marks) (Attach proof as Annexure C1)		
	Zonal Award (one mark for each award)	2 marks	0
	National Awards (two marks for each award)	2 marks	
C2.	Extension workers Award at State /National level (by Government Agency) during 2018. (Proofs to be enclosed as Annexure C2) (Maximum 4 marks)		0
	State level Awards		
	1-5 Awards		
	More than 5 awards		
	National level awards		
	1-3 Awards		
	More than 3 awards		
C3.	Quality input supplied by University (Seed, Semen, Planting material etc.) during 2018 (Maximum 2 marks)		0
	More than 50,000 – 1,50,000 planting material	1 mark	
	More than 1,50,000 planting material	2 marks	
	Or		
	Semen up to 10,000 doses	1 mark	
	Semen up to 10001 to 50,000 doses	2 marks	
	Or		
	Breeder Seed (Cereals and Pulses) up to 200 quintals	1 mark	
	More than 200 quintals	2 marks	
	Or		
	Fish Seed / fingerlings supplied		
	10 Lakh to 1 Crore	1 mark	1
	More than 1 Crore	2 marks	
C4.	If one lakh soil samples are analyzed per year (Maximum 1 marks) (Samples of fish, water, soil, fish products, and feed)	1 marks	1
C5.	Revenue generated through consultancies, certification, testing, tuition fee, licensing, training, sale of inputs and commercialization of technologies during FY 2018-19. The details of revenue, head (item) wise, duly certified and signed by comptroller of the university need to be listed as Annexure C5. The list should exclude the items listed in B3 (iii) (Maximum 10 marks)		0
	5-10% of University Budget	1 mark	1
	10-20% of University Budget	4 marks	
	20-30% of University Budget	7 marks	
	More than 30% of University Budget	10 marks	



C6.	Number of inter – institutional collaborative projects obtained during 2018 (proof to be enclosed as Annexure C6) (Maximum 2 marks)		
	One project	1 mark	
	Two or more	2 marks	2
C7.	Partnership with Private Sector made during 2018 (proof to be enclosed as Annexure C7) (Maximum 1 mark)	1 marks	1
C8.	Exchange of faculty (Sabbatical, Visiting Scientist, Adjunct Faculty) during 2018 (Proof to be enclosed as Annexure C8) (Maximum 2 marks)		0
	Faculty coming from outside University (Minimum 1)	1 mark	1
	Faculty of University going to other University (Minimum 1 faculty)	1 mark	
C9.	Number of Enterprises / star – ups promoted by the University (list is to be provided as Annexure C9) (Maximum 2 marks)		
	1-2	1 mark	
	More than 2	2 marks	2
C10.	Percentage of Students employed in Public/ Private/Banking Sectors (List is to be provided as Annexure C10) (Maximum 2 marks)		
	10-20 percent	1 mark	1
	More than 20 percent	2 marks	
	Total	100 marks	40

Instructions for filling the Proforma: -

- The filled-in proforma should be uploaded on university website prior to submission to ICAR. Uploading of the document is pre-requisite for evaluation of the proposal.
- The filled-in proforma should be submitted along with the Declaration duly signed by the Registrar of the University.
- The Year 2018 mentioned in the Proforma refers to the calendar year. Only in case of the Revenue generated (C5) details, the Financial Year 2018-19 need to be considered.
- The information need to be submitted strictly as per the Proforma and the Annexure s provided.

Annexure for the Parameter A1

S. No.	Number of students got ICAR-PG Scholarships (former ICAR-JRF) in 2018	Total number of UG students passed out in 2018	Percentage (%)
1.	2	53	3.77

List of the students got ICAR-PG Scholarships in 2018

S. No.	Name of the student	ID. No.
1.	Naveenkumar, R.	BFP 14008
2.	Devadharshini, S.	BFT 14048

Annexure for the Parameter A2

S. No.	Number of students got admission in Masters program in 2018 through ICAR entrance examination	Total number of UG students passed out in 2018	Percentage (%)
1.	16	53	30.19

List of the students got admission in Master's program in 2018 through ICAR entrance examination

S. No.	Name of the student	ID. No.
1.	Ajithkumar, M	BFP 14001
2.	Dhanalakshmi, M	BFP 14003
3.	Manikandan, V	BFP 14005
4.	Naveenkumar, R	BFP 14008
5.	Naveen Rajeshwar, B	BFP 14009
6.	Santhoshkumar, A	BFP 14013
7.	Satheesh, R	BFP 14014
8.	Vignesh, M	BFP 14019
9.	Akilandeshwari, A.	BFT 14042
10.	Arthi, R.	BFT 14043
11.	Devadharshini, S.	BFT 14048
12.	Karthik, R.	BFT 14057
13.	Manimozhi, E.	BFT 14066
14.	Manivannan, M.	BFT 14068
15.	Porkodi, M.	BFT 14070
16.	Sudarshan, S.	BFT 14078

## Annexure for the Parameter A3

S.No.	Number of students got ICAR SRFs in 2018	Total number of Ph.D. students passed out in 2018	Percentage (%)
1.	Nil	5	0

## Annexure for the Parameter A4

S.No.	Number of students got Admission in Ph.D. in 2018 through ICAR Entrance	Total number of Masters students passed out in 2018	Percentage (%)
1.	-	-	-
List the students got Admission in Ph.D. in 2018 through ICAR Entrance exam			
S.No.	Name of the Student		
1.	-		

## Annexure for the Parameter A6

S. No.	Number of students got ARS in the disciplines offered by the university in 2018	Total number of seats available in such disciplines advertised by ASRB	Percentage (%)
	Nil	Nil	-
List of the students got ARS selections			
S. No.	Name of the student	ARS Discipline	
-	-	-	

## Annexure for the Parameter A7

S. No.	Number of students qualified NET in the disciplines of agriculture and allied sciences	Total number of PG and Ph.D. students	Percentage (%)
1.	10	33	30.3

## List of the students qualified NET

S. No.	Name of the student	ID. No.	Discipline
1.	Mahadevi	DPF(P)16004	Aquaculture
2.	Prabu, E.	DPF(P)17007	Aquaculture
3.	Yuvarajan, P.	U-18-TN-03-003-D-F-005	Aquaculture
4.	Prabu, E.	MFT 15050	Aquaculture
5.	Kalaiyarasi, T.	MFT 15067	Fisheries Resource Management
6.	Sudhan, C.	MFT 15069	Fisheries Resource Management
7.	Deepika, S.	MFT 15053	Aquatic Environment Management
8.	Masilan, K.	MFT 15058	Fish Processing Technology
9.	Arun Jenish, D.	MFT 15061	Fishing Technology and Fisheries Engineering
10.	Ramesh Kumar	MFT 15063	Fishing Technology and Fisheries Engineering

## Annexure A8

## Abstract of Teaching Faculty

S. No.	College / Institute / Centre	Sanctioned	Filled	Vacant
1.	Tamil Nadu Dr.J.Jayalithaa Fisheries University, Nagapattinam	6	6	0
2.	Fisheries College and Research Institute, Thoothukudi	73	49	24
3.	Dr.M.G.R. Fisheries College and Research Institute, Ponneri	21	15	6
4.	College of Fisheries Engineering, Nagapattinam	21	14	7
5.	Dr.M.G.R. Fisheries College and Research Institute, Thalainayeru	29	7	22
6.	Institute of Fisheries Post Graduate Studies, Chennai	6	0	6
7.	Tamil Nadu Dr.J.Jayalithaa Fisheries University Academy, Chennai	4	1	3
8.	ICAR-Krishi Vigyan Kendra, Sikkal	7	4	3
	TOTAL	167	96	71



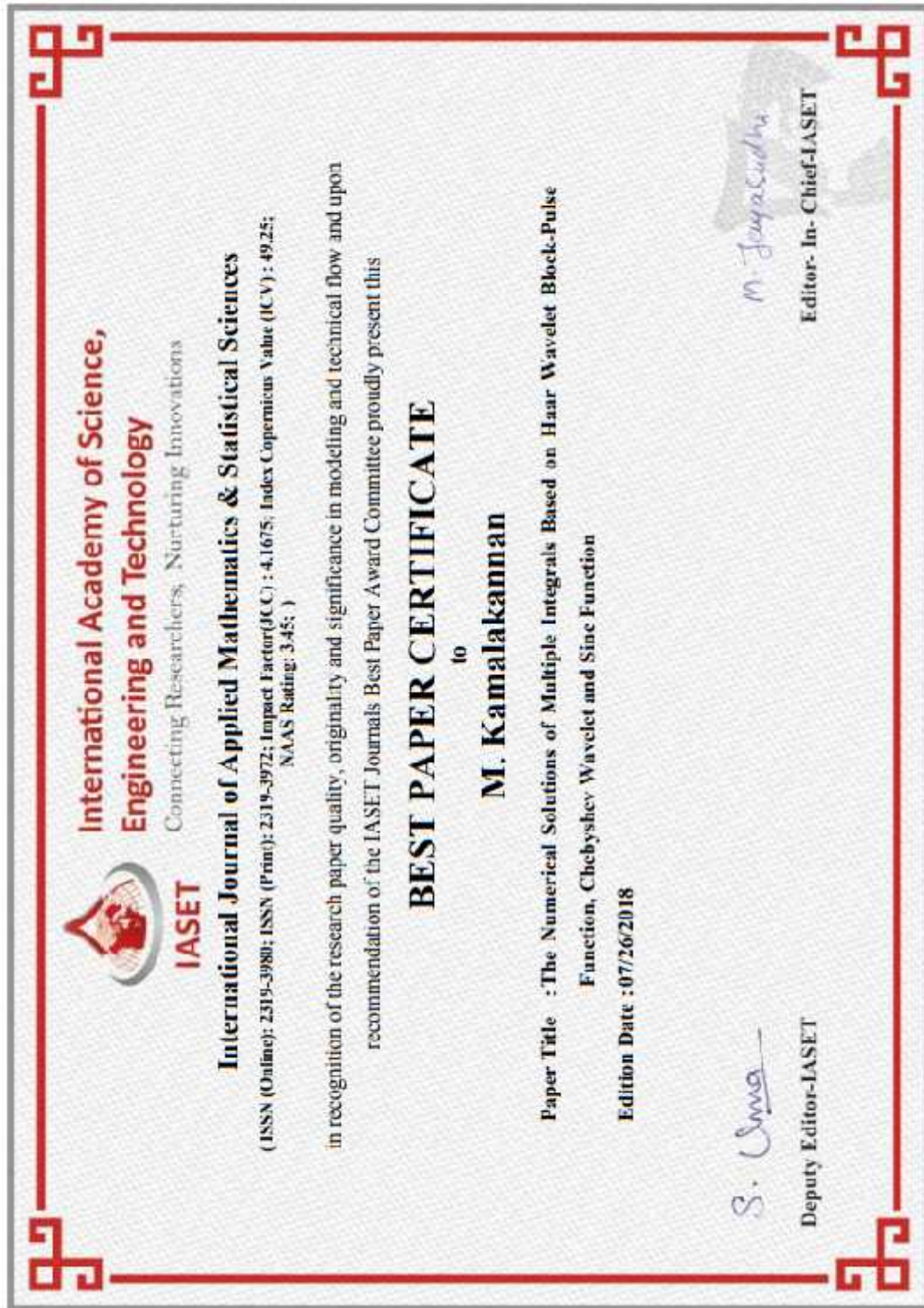
11.	Programme Co-ordinator / Senior Scientist																						1	1	0
12.	Subject Matter Specialists																						6	3	3
TOTAL		6	6	0	73	49	24	21	15	6	29	7	22	21	14	7	6	0	6	4	1	3	7	4	3

S – Sanctioned; P – Position; V – Vacant

Annexure for A10 - National and International awards (6 nos.)

International Awards (2 nos.)

- Dr.M.Kamalakaran received Best Paper Award for "The numerical solutions of multiple integrals based on Haar Wavelet Block-Pulse function, Chebyshev Wavelet and Sinc function, International Journal of Applied Mathematics & Statistical Science, 26.04.2018.



- Dr.D.Kesavan received Best Presentation Award (Poster Presentation) at International Conference on Recent Advances in Food Processing Technology, IIFPT, Thanjavur, India, 17-19<sup>th</sup>August 2018.





National Awards (4 nos.)

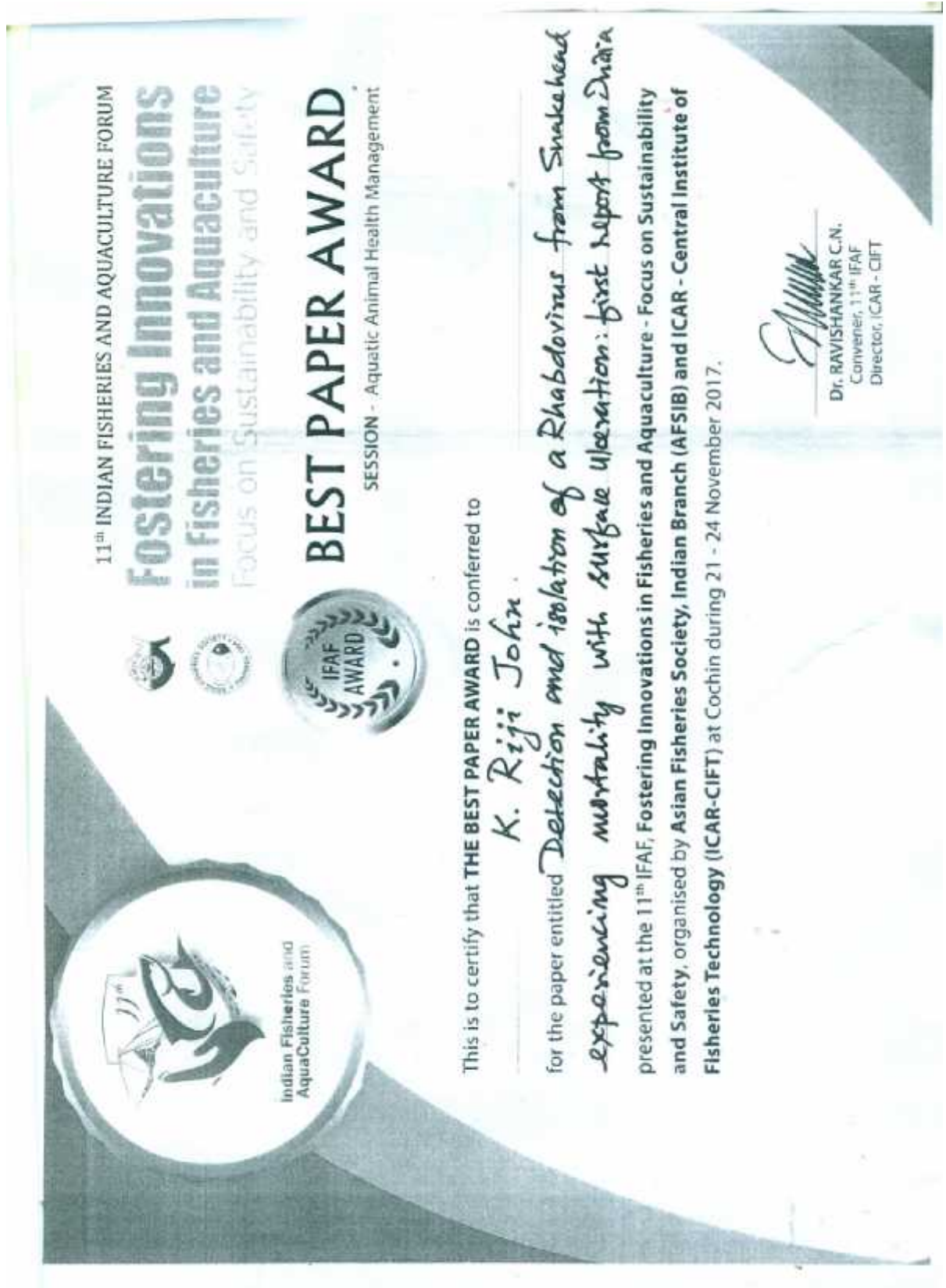
- Dr.B.Sundaramoorthy received Best Book Award (Oral Presentation) from Agricultural Scientific Tamil Society, New Delhi on 19.11.2018.



- Dr.S.Athithan received Best Innovative Extension Worker Award from Society for Advancement of Agricultural Innovations in National Conference on Innovative Farming for Food and Livelihood Security in Changing Climate at West Bengal, on 12-13.01.2018.



- Dr.K.Riji John received Best Paper Award in 11<sup>th</sup> Indian Fisheries and Aquaculture Forum organized by Asian Fisheries Society and ICAR-CIFT at Cochin during 21-24.11.2017.



Dr.D.Kesavan received Best Paper Award (Oral Presentation) at 4<sup>th</sup> National Conference on Agricultural Scientific Tamil, IFPGS, Chennai, India, on 19-20.11.2018.



## Annexure A11

List of the faculty members received Awards		
S. No.	Name of the faculty member	Award details
1.	Dr. G. Jeyasekaran	Tamil Nadu Scientist Award by Government of Tamil Nadu

## Annexure for the Parameter A14

S. No.	Number of faculty with Ph.D. degrees obtained from Universities from outside of the State where employed	Total number of faculty	Percentage (%)
1.	17	96	17.7

## List of the faculty members

S. No.	Name of the faculty member
1	Dr.G.Jeyasekaran
2	Dr.G.Sugumar
3	Dr.K.Rathnakumar
4	Dr.K.Riji John
5	Dr.M.Rosalind George
6	Dr.R.Jeya Shakila
7	Dr.A.Gopalakannan
8	Dr.C.Anand
9	Dr.S.Anand
10	Dr.V.Alamelu
11	Dr.D.Kesavan
12	Dr.V.Kaliyamurthi
13	Dr.E.Suresh
14	Dr.M.Ramar
15	Dr.N.Muralidharan
16	Dr.Mohmmad Tanveer
17	Dr.C.Lloyd Chrispin

Annexure for the Parameter A15

S. No.	Number of faculty from the States other than the State in which university is located	Total number of faculty	Percentage (%)
1.	4	96	4.12
List of the faculty members			
S. No.	Name of the faculty member		
1.	Dr.K.Riji John		
2.	Dr.M.Rosalind George		
3.	Dr.Mohammad Tanveer		
4.	Ms. Ranjeeta Kumari		

Annexure for the Parameter A16

S. No.	Number of faculty with 3 months or more of Postdoctoral/Visiting scientist experiences abroad in 2018	Total number of faculty	Percentage (%)
-	-	-	-
List of the faculty members			
S. No.	Name of the faculty member		
-	-		

## Annexure A19

ICAR Accreditation on 01.01.2018

University ICAR accredited : 5 years



## ANNEXURE A20

Implementation of recommendations of Fifth Deans Committee / BSMA Committees

As per the V Dean's Committee recommendations, all the courses have been re-distributed and implemented from B.F.Sc. 2016-17 onwards. The Students READY Programme has also been implemented for the B.F.Sc. (2014-15 batch) onwards. As suggested by the DDG (Education) and ADG (Fisheries) at the review meeting on 29.06.2017 & 30.06.2017 at NAARM, Hyderabad, the credit load for the courses has been accommodated within 6 semesters and the student READY programme is scheduled for 7<sup>th</sup> and 8<sup>th</sup> semesters from 2016-17.



**TAMIL NADU FISHERIES UNIVERSITY**  
**Approved Minutes of the Fifth Meeting of the Academic Council**

**Proc. No. 1535/TNFU/V AC/ 2015 dated : 18.01.2017**

Present :  
Dr. K.RATHNAKUMAR, Ph.D.,  
Registrar and Secretary, AC

The Fifth meeting of the Academic Council of the Tamil Nadu Fisheries University was held on 29.12.2016 at 11.00 a.m in Agricultural Conference Hall of the Secretariat, Chennai. The Chairman of the Academic Council welcomed all the members and nominated the Controller of Examinations, TNFU, Nagapattinam to act as Member-Secretary for this particular meeting. The following members were present:

Sl.No.	Name	
Class I - Ex-officio Members :		
1.	Dr.K.Rathnakumar, Acting Vice –Chancellor	Chairman
2.	Thiru. Gagandeep Singh Bedi, I.A.S., Secretary to Government, AHD&F Dept. (Additional Charge)	Member
3.	Commissioner of Fisheries, I/c., State Fisheries Department (Additional Charge)	-do-
4.	Dr.G.Sugumar, Dean Fisheries College and Research Institute, Thoothukudi	-do-
5.	Dr.S.Felix Dean Fisheries College and Research Institute, Ponneri	-do-
6.	Dr. S. Balasubramanian Dean College of Fisheries Engineering TNFU, Nagapattinam	-do-
7.	Dr.K.Karal Marx, Dean, Faculty of Basic Sciences & Director of Research I/c., Tamil Nadu Fisheries University Nagapattinam	-do-
8.	Dr.M.Nagoor Meeran Director of Extension Education TNFU, Nagapattinam	-do-



9.	Dr.S.A.Shanmugam, Controller of Examinations TNFU, Nagapattinam	-do-
10.	Dr.K.Rathnakumar Registrar	Member-Secretary

**Class II - Other Members:**

1.	Dr.A.Srinivasan Chair School of Fisheries Resources and Environment Management FC&RI, Thoothukudi	Member
2.	Dr.K.Riji John Chair School of Aquaculture FC&RI, Thoothukudi	-do-
3.	Dr.G.Jeyasekaran Professor and Head Department of Fish Quality Assurance and Management FC&RI, Thoothukudi	-do-
4.	Dr.B.Sundaramoorthy Professor and Head FC&RI, Thoothukudi	-do-
5.	Dr.T.V.Ramana, Dean, Faculty of Fisheries, Sri Venkateswara Veterinary University, Dr.Y.S.R.Bhavan, Tirupati Andhra Pradesh	-do-

The following items of the agenda were discussed and decisions taken:

**A.5.2 ACTION TAKEN REPORT**

<b>AA.4.4.2</b>	<b>PERMISSION FOR IDENTIFYING AN ASSISTANT PROFESSOR POST SANCTIONED IN THE DEPARTMENT OF FISH PATHOLOGY AND HEALTH MANAGEMENT, FC&amp;RI, THOOTHUKUDI FOR FISH PHARMACOLOGY</b> This proposal is treated as withdrawn.
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<i>Agenda No</i>	<i>Agenda Item</i>
<b>A5.4.1</b>	<b>TO CONSIDER THE RECOMMENDATIONS OF THE 16<sup>th</sup> MEETING OF THE UNIVERSITY OFFICERS</b>
<p>The Academic Council accepted the recommendations of the 16<sup>th</sup> University Officers meeting held on 20.10.2016 to change the existing nomenclature of the Department of Fish Health Management at Fisheries College &amp; Research Institute, Ponneri as "AQUATIC ANIMAL HEALTH MANAGEMENT" to fall in line with the ICAR guidelines.</p>	
<b>A5.4.2</b>	<b>TO CONSIDER THE RECOMMENDATIONS OF THE III MEETING OF THE BOARD OF STUDIES, FACULTY OF FISHERIES SCIENCE</b>
<p>The Academic Council examined the recommendations of the 3<sup>rd</sup> Meeting of the Board of Studies Fisheries Science held on 08.07.2016 and the following decisions were taken</p>	
<b>BOS Agenda No.</b>	<b>Decision</b>
03	<p>Accepted the proposal in principle to start the programme with the following directions:</p> <p>The Dean, FC&amp;RI, Ponneri is requested to Co-ordinate the programme till identifying suitable faculty to carry out this work. He is entrusted with following work</p> <ol style="list-style-type: none"> <li>1. Identify Authentic body from whom the recognition of the proposed MBA (Fisheries Enterprises Management) to be obtained.</li> <li>2. Evolving the mechanism of operation of the programme</li> <li>3. Eligibility criteria for admission (BFSc and other graduates) to commence the course.</li> </ol>
05	<p>Approved with the following conditions.</p> <ol style="list-style-type: none"> <li>i. Payment of stipend shall be discontinued if the students are selected</li> </ol>

to work in the externally funded project.

- ii. On completion of the project or if the candidate resigns from the project, he/she shall be reverted back to the existing stipend scheme and continue to draw the same.

06 The recommendation to allot 40% seats in Post graduate studies to other State candidates (15% thro' TNFU entrance and 25% thro' ICAR) were not considered.

However it was decided to follow the existing system of seat allocation i.e., 25% seats to ICAR with a provision, that the vacancy arising out of 25% seats due to non-availability of candidates with ICAR, shall be filled with other State candidates through TNFU entrance exam.

09 The proposed seminars were approved by the council. These seminars shall be conducted on a convenient date and venue within the School with the following caption

- a) Non credit Seminar I (Pre Research Seminar)
- b) Non credit Seminar II (Pre-submission of thesis seminar)

17 Approved

19 Approved

20 Accepted to follow the revised syllabus for BFSc students from 2016-17 academic year onwards as per the ICAR V Dean's committee recommendations.

Other recommendations of the V Dean's Committee were also, approved for adoption. In case, any change is requested in the Deans Committee recommendations the same may be proposed

21 Approved the re-organization of the departments at FC&RI, Ponneri as given below:-

1. Department of Aquaculture
2. Department of Aquatic Animal Health Management
3. Department of Fisheries Resource Management
4. Department of Aquatic Environment Management
5. Department of Fish Processing Technology
6. Department of Fish Engineering
7. Department of Fisheries Extension, Economics and Statistics (As per the ICAR Syllabus)

**A5.4.3**

**TO CONSIDER THE RECOMMENDATIONS OF THE ICAR V DEANS COMMITTEE ON THE IMPLEMENTATION OF "READY" PROGRAMME TO THE UNDER GRADUATE DEGREE PROGRAMME.**

The proposal has been accepted by the Academic Council

**A5.4.4**

**TO CONSIDER THE PROPOSAL ON THE INTRODUCTON OF INTELLECTUAL PROPERTY RIGHT (IPR) AS ELECTIVE SUBJECT IN**

	<b>UG/PG DEGREE PROGRAMMES.</b>
The Academic Council directed the Dean, Faculty of Fisheries Science to prepare syllabus for <b>inclusion under a suitable course, as course content and not as a separate course</b> and be placed in the next meeting for approval.	
<b>A5.4.5</b>	<b>TO CONSIDER THE INSTITUTION OF "DR.T.M.SAMOCHA AQUA BIO-TECHNOLOGY AWARD"</b>
The Academic Council accepted the proposal and recommended to the Board of Management with suggestion to form a committee to frame the rules for the award	
<b>A5.4.6</b>	<b>TO CONSIDER THE REVISION OF TRAINING SYLLABUS AT FISHERIES STAFF TRAINING INSTITUTE, CHENNAI</b>
The Academic Council directed to re draft the syllabus in consultation with the Department (of Fisheries) Officials and submitted in the next meeting for approval.	
<b>A5.4.7</b>	<b>TO CONSIDER THE INCLUSION OF ELP / IPT CREDIT LOADS FOR THE CALCULATION OF OGPA.</b>
This proposal has been approved by the Academic Council	
<b>A5.4.8</b>	<b>TO CONSIDER THE RENAMING OF TNFU MERIT SCHOLARSHIP AS TNFU STIPEND WITH REVISED GUIDE LINES</b>
Accepted by the Academic Council for adoption as recommended by the University Officers meeting held on 20.10.2016.	
<b>A5.4.9</b>	<b>TO CONSIDER THE CHANGE OF NOMENCLATURE OF THE DEPARTMENT OF FISHERIES ENVIRONMENT AS "DEPARTMENT OF AQUATIC ENVIRONMENT MANAGEMENT"</b>
The Academic Council accepted the above proposal on the change of nomenclature.	
<b>A5.4.10</b>	<b>TO CONSIDER THE PROPOSAL OF ESTABLISHMENT OF POLYTECHNIC TO OFFER CERTIFICATE COURSES</b>
The Academic Council deferred the establishment of polytechnic since no time available to discuss in detail. However, the council accorded approval to offer certificate courses only.	

**/With the approval of the Vice-chancellor and Chairman, AC/**

*A. Lakshmi*  
**Registrar and Secretary, AC**

To  
All the members  
CC: PA to VC, TNFU, Nagapattinam

  
1801/2017

## Annexure for the Parameter B1

S. No.	Total number of research articles having NAAS rating of over 6.0 published in 2018	Total number of faculty	Number of research papers per faculty
1.	14	96	0.14
List of the research articles*			
S. No.	Details of publication	NAAS Rating	
1.	Elango, J., Sanchez, C., Val, J.E.M.S., Henrotin, Y., Wang, S., Motaung, K.S.C.M., Guo, R., Wang, C., Robinson, J., Regenstein, J.M. and Bao, B., 2018. Cross-talk between primary osteocytes and bone marrow macrophages for osteoclastogenesis upon collagen treatment. <i>Scientific Reports</i> , 8:5318.	10.12	
2.	Wilwet, L., Jeyasekaran, G., Shakila, R.J., Sivaraman, B. and Padmavathy, P., 2018. A single enzyme PCR-RFLP protocol targeting 16S rRNA/tRNAval region to authenticate four commercially important shrimp species in India. <i>Food Chemistry</i> , 239:369-376.	10.05	
3.	Kumar V.S., Pandey, P.K., Anand, T., Bhuvaneshwari, G.R., Dhinakaran, A. and Kumar, S., 2018. Biofloc improves water, effluent quality and growth parameters of <i>Penaeus vannamei</i> in an intensive culture system. <i>Journal of Environment Management</i> , 215:206-215.	10.01	
4.	Arisekar, U., Shakila, R.J., Jeyasekaran, G., Shalini, R., Kumar, P., Malini, A.H. and Rani, V., 2018. Accumulation of organochlorine pesticide residues in fish, water, and sediments in the Thamirabarani river system of southern Peninsular India. <i>Environmental Nanotechnology, Monitoring &amp; Management</i> , Doi.org/10.1016/j.enmm.2018.11.003	9.59	
5.	Sivaraman, B., Jeyasekaran, G., Shakila, R.J., Alamelu, V., Wilwet, L., Aanand, S. and Sukumar, D., 2018. PCR-RFLP for authentication of different species of processed snappers using mitochondrial D-loop region by single enzyme. <i>Food control</i> , 90:58-65.	9.50	
6.	Surya, T., Jeyasekaran, G., Shakila, R.J., Asha Hema Malini, N., Palanikumar, M. and Alamelu, V., 2018. Formation of biogenic amines in delayed salt-cured whole and gutted Indian Oil Sardines ( <i>Sardinella longiceps</i> ). <i>Journal of Aquatic Food Product Technology</i> , 27:394-404.	8.32	
7.	Ramesh, R., Shakila, R.J., Sivaraman, B., Ganesan, P. and Velayutham, P., 2018. Optimization of the gelatinization conditions to improve the expansion and crispiness of fish crackers using RSM. <i>LWT Food Science and Technology</i> , 89:248-254.	7.80	
8.	Selvaganapathi, R., Jeyasekaran, G., Shakila, R.J., Sukumar, D., Kumar, M.P. and Sivaraman, B., 2018. Occurrence of <i>Listeria monocytogenes</i> on the seafood contact surfaces of Tuticorin Coast of India. <i>Journal of Food Science and Technology</i> , 55:2808-2812.	7.50	
9.	Tanveer, M., Moulick, S., Mukherjee, C.K., 2018. Economic feasibility of goldfish ( <i>Carassius auratus</i> Linn.) recirculating aquaculture system. <i>Aquaculture Research</i> , 49:2945-2953.	7.46	
10.	Masilan, K., Neethiselvan, N., Velayudham, P., Jeya Shakila, R. 2018. Development of dry artificial bait for trap fishing using tuna red meat and shrimp head wastes. <i>Journal of Aquatic Food Product Technology</i> , 27:1009-1022.	6.48	
11.	Karuppasamy, K., S. David Kingston, P. Jawahar A. Ranjith, Kathirvelpandian, S. Anand. 2018. New record of the starry flying gurnard, <i>Dactylo ptenapeterseni</i> (Scorpaeniformes: Dactylopteridae):	6.37	

	from wadge Bank, Southwest coast of India. Natl. Acad. Sci. Lett. Published online. . <a href="https://doi.org/10.1007/s40009-018-0726-y">https://doi.org/10.1007/s40009-018-0726-y</a> .	
12.	Prabu, E., Rajagopalsamy, C.B.T., Ahilan, B., Jeevagan, J.M.A. and Renuhadevi, M., 2018. Effect of dietary supplementation of biofloc meal on growth and survival of GIFT Tilapia. Indian Journal of Fisheries, 65:65-70.	6.28
13.	Daniel, N., Pavankumar A., Kirubasankar, Praveenraj, A., Kathirvelpandian, A., Dam Roy, S. and Chaudhary, A., 2018. First record of whitebarred goby <i>Ambly gobiusphalaena</i> (Valenciennes, 1837) from Indian waters. Indian Journal of Fisheries, 65: 116-121.	6.28
14.	Karthickumar, P., Sinija, V.R., Alagusundaram, K. and Yadav, B.K., 2018. Development of a sorting system for fruits and vegetables based on acoustic resonance technique. Agricultural Mechanization in Asia, Africa and Latin America, 49:22-27.	6.12

#### Annexure for the Parameter B2

Sl. No.	Number of faculty members having h-index as 10 or more	Total number of faculty	Percentage of faculty with h-index as 10
1.	5	96	5.2
List of faculty members having h-index as 10 or more			
Sl. No.	Name of the faculty	h-index	
1.	Dr. G. Jeyasekaran	21	
2.	Dr. R. Jeya Shakila	20	
3.	Dr. D. Kesavan	16	
4.	Dr. K. Riji John	12	
5.	Dr. M. Rosalind George	11	

Annexure for the Parameter B3(i)

S. No.	Number of faculty members having Patent	Details of the Patent	No. of Patent
1.	Dr. A. Uma	Development of primers for detection of Hepatopancreatic Parvovirus (HPV) in shrimp by polymerize chain Reaction	300445

Annexure for the Parameter B3(ii)

Proof for development and adoption of technology



PROCEEDINGS OF THE REGISTRAR  
TAMIL NADU Dr. J. JAYALALITHAA FISHERIES UNIVERSITY  
Nagapattinam - 611 001  
PRESENT: Dr. A. SRINIVASAN, Ph.D.,  
REGISTRAR i/c.,

U.S.O. No.269-A/R3/TNJFU/Estt./2018  
RC.No.891-A/R3/TNJFU/Estt./2018

Dated: 08.03.2018

Sub: TNJFU – Estt – Technology developed by the various units of  
TNJFU – released - orders - issued.

\*\*\*\*\*

The following orders are issued with the approval of the Vice-Chancellor,  
Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam.

**ORDER:**

It is hereby ordered that the following technologies developed in the various units  
of Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam were approved and  
released for adoption by the farmers / entrepreneurs.

S. No.	Name of the Technology	Name & College/Research Center
1.	Biofloc based shrimp nursery system	Dr. S. Felix Dr. A. Gopalakannan Ms. M. Menaga Dr. MGR FC&RI, Ponneri
2.	Biofloc based shrimp farming system	Dr. S. Felix Dr. A. Gopalakannan Ms. M. Menaga Dr. MGR FC&RI, Ponneri
3.	Farm raised prawn pickle	Dr. K. Rathnakumar Dr. N. Manimehalai Dr. P. Karthickumar College of Fisheries Engineering, Nagapattinam.
4.	Fish curry in retort pouches	Dr. N. Manimehalai Dr. K. Rathnakumar Dr. P. Karthickumar College of Fisheries Engineering, Nagapattinam.
5.	Fish noodles from low cost fish	Dr. K. Rathnakumar Dr. N. Manimehalai Dr. P. Karthickumar College of Fisheries Engineering, Nagapattinam.
6.	Clown fish breeding technology	Dr. J. Stephen Sampathkumar Mandapam Centre for Sustainable Aquaculture
7.	Low cost Tilapia farming in ponds	Dr. J. Stephen Sampathkumar Dr. P. Chidambaram Barur Centre for Sustainable Aquaculture
8.	GIFT Tilapia grow out feed	Dr. N. Felix Directorate of Incubation and vocational Training, Muttukadu, Chennai
9.	Crab meat in brine in retort pouches	Dr. S. Balasundari Mrs. NimishMol Stephen Dr. MGR FC&RI, Ponneri



10.	Extruded snack fortified with marine proteins	Dr. S. Balasundari Dr. N. Muralidharan Dr. MGR FC&RI, Ponneri
11.	Loach breeding technique	Dr. K. Ravaneswaran Dr. J. Stephen Sampath Kumar Kanyakumari Parakkal Centre for Sustainable Aquaculture

All the respective Directorates of the University are directed to take necessary action to disseminate the technologies to the fisher folk / farmers / entrepreneurs etc.,

*A. Vasanth 8/3/18*  
REGISTRAR i/c.,

To:

The above Individuals – through proper channel.

CC: The Director of Extension Education, TNJFU, Nagapattinam

The Dean, CoFE, TNJFU Nagapattinam

The Director, DSA, TNJFU, Thanjavur.

The Dean i/c., Dr. M.G.R. FCRI, TNJFU, Ponneri.

The Director, DIVA, TNJFU, Muttukadu.

PA to VC, TNJFU, Nagapattinam

Stock file / Spare

*08032018*

Name of the technology	Fish noodles from low cost fish	
Technology developed by	Dr. K. Rathnakumar Dr. N. Manimehalai Dr. P. Karthickumar College of Fisheries Engineering, Nagapattinam.	
Technology adopted by	Agaya Thamarai Self- Help Group. 149, Aariya natu vadaku theru, Pattinachery, Nagore.	
	S. Kumaravali	9585023479
	S. Shaliny	9843789414
	A. Mari	8489768205



Name of the technology	Fish curry in retort pouches	
Technology developed by	Dr. N. Manimehalai Dr. K. Rathnakumar Dr. P. Karthickumar College of Fisheries Engineering, Nagapattinam.	
Technology adopted by	Sembara Self Help Group Akkaraipettai, Nagapattinam	
	P. Jothi	9943850759
	R. Sasikala	9042831249
	S. Bakiyalakhshmi	8940976765



Name of the technology	Farm raised prawn pickle	
Technology developed by	Dr. K. Rathnakumar Dr. N. Manimehalai Dr. P. Karthickumar College of Fisheries Engineering, Nagapattinam.	
Technology adopted by	Manikkam Self- Help Group. Keechankuppam, Nagapattinam	

	N. Balasarasvathi	8883567842
	R. Malarkodi	9659178072
	S. Santhakumari	9787387726



Name of the technology	Low cost Tilapia farming in ponds	
Technology developed by	Dr. J. Stephen Sampathkumar Dr. P. Chidambaram Barur Centre for Sustainable Aquaculture	
Technology adopted by	R.Selvam S/o Rajamani Kodalavalasai(Vill) Nadupatti Uthangarai (TK) Krishnagir (Dt)	K. Venkatesh S/o Kathirvelan 54 Nadupatti (VIII) Uthangarai (TK) Krishnagir (Dt)
	S.Thanikasalam, S/o Selvaraj, Nadupatti (Vill) (Po) Uthangarai (TK) Krishnagir (Dt)	A. Chidambaram, S/o.Adhimulam, 65 Sakthi Koil Street, Nadupatti (Vill) (Po) Krishnagir (Dt)
	S.Settu S/o Shanmugam, 153A Kodalavalasai, Nadupatti (Vill) Uthangarai (TK) Krishnagir (Dt)	S. Ponnusamy, S/o Selvaraj, P –Nadupatti, Nadupatti (Po) Uthangarai (TK) Krishnagir (Dt)



Name of the technology	Clown fish breeding technology	
Technology developed by	Dr. J. Stephen Sampathkumar Mandapam Centre for Sustainable Aquaculture	
Technology adopted by	Mr.K.Senthoor Ganesh S/o Kasimalai daesigan, 3-1873, Akkalmadam, Pamban	Mr.Gladwin, MAV Breeders, Mandapam, Ramanathapuram Dt.

	Ramanathapuram Dt.	
Name of the technology	GIFT Tilapia grow out feed	
Technology developed by	Dr. N. Felix Directorate of Incubation and vocational Training, Muttukadu, Chennai	
Technology adopted by	Mr.R.Monish Kumar M/s.Monish Aquatics Palur,Chengalpattu Kancheepuram Dt.	Mr.V.G.Eraniappan M/s Periyar Integrated fish farm 1/574, GST Road Vandalur, Chennai-48
Name of the technology	Crab meat in brine in retort pouch	
Technology developed by	Dr. S. Balasundari Mrs. Nimish Mol Stephen Dr. MGR FC&RI, Ponneri	
Technology adopted by	R. Joel Vasanth Kumar, Proprietor of Zion Marine, No, 30/4 postal audit colony, Gandhi street, Saligramam, Chennai – 600 093, Tamil Nadu.	
Name of the technology	Extruded snack fortified with marine protein	
Technology developed by	Dr. S. Balasundari Dr. N. Muralidharan Dr. MGR FC&RI, Ponneri	
Technology adopted by	M/S. Blue Lagoon, Naduvur Matha Kuppam, Pulicat, Tiruvallur District, Tamil Nadu	Sri Vari Agency, 192/2, Om Sai township, Vellodai, Ponneri – 601 204, Tiruvallur district, Tamil Nadu

Annexure for the Parameter C5



TAMIL NADU Dr. J. JAYALALITHAA FISHERIES UNIVERSITY

S. Thirugnanasambandam, B.Com., A.C.A.,  
Finance Officer,

Office of the Finance Officer  
TNJFU, Nagapattinam - 611 002

Lr.656/F2/TNJFU/2019

Dated: 08.06.2019.

Template for the Parameter C5

Sl. No.	Revenue Generated	2018-19
1	Consultancies	0
2	Certification	8600
3	Testing	800825
4	Tuition fee	15429321
5	Licensing	0
6	Training	123760
7	Sale of inputs	523515
8	Commercialization of technologies	48000
9	Any other (including Institutional Bank Interest, Sale of application, NRI students Institutional Economic Fee)	8126862
	<b>TOTAL</b>	<b>25360883</b>

Finance Officer  
TNJFU, Nagapattinam

Total revenue generated = Rs.2,53,60,883/-

Total budget of the University excluding non-recurring and civil work = Rs.37,69,30,000/-

% of revenue generated = 6.73%

Annexure for C6

Number of inter-institutional collaborative projects obtained during 2018

S. No.	Name of the inter-institutional collaborative projects	Name of the institute
1.	DBT project on "Healthy shrimp and GIF Tilapia production through bio-floc based farming system: Development of technology and standard operating procedures" (No.BT/PR/11721/AAQ/3/683/2014, dated 29.12.2015)	Central Institute of Brackishwater Aquaculture
2.	DBT project on "Bio-prospecting for anti-osteoporetic collagen peptides derived from fish bones" (No.BT/PR15748/AAQ/3/803/2016, dated 01.08.2017)	University of Hyderabad

Nn. BT/PR11721/AAU/3/683/2014  
GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE & TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors  
CGO Complex, Lodhi Road,  
New Delhi-110 003  
Dated: 29.12.2015

**ORDER**

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled: **'HEALTHY SHRIMP AND 'GIFT' TILAPIA PRODUCTION THROUGH BIO-FLOC BASED FARMING SYSTEM: DEVELOPMENT OF TECHNOLOGY AND STANDARD OPERATING PROCEDURE'** for a period of 3 Year 0 Month at a total cost of Rs. **12181025** (Rupees: One Crores Twenty-One Lakhs Eighty One Thousand and Twenty Five Only) on the terms and conditions detailed here under:

**2 The Project :**

**2.1 Title :** **'HEALTHY SHRIMP AND 'GIFT' TILAPIA PRODUCTION THROUGH BIO-FLOC BASED FARMING SYSTEM: DEVELOPMENT OF TECHNOLOGY AND STANDARD OPERATING PROCEDURE'**

**2.2 Details of the Investigators:**

**Project Coordinator**

**Dr. Akshaya Panigrahi**  
Principal Scientist  
Crustacean Culture Division  
Central Institute of Brackishwater Aquaculture  
75, Santhome High Road, RA Puram Chennai Tamil Nadu, Tamilnadu,  
Chennai, 044 24617523, 9025739499, Tamilnadu, 600028

**Principal Investigators:**

**Dr. Akshaya Panigrahi**  
Principal Scientist  
Crustacean Culture Division  
Central Institute of Brackishwater  
Aquaculture  
75, Santhome High Road, RA Puram  
Chennai Tamil Nadu, Tamilnadu,  
Chennai, 044 24617523,  
9025739499, Tamilnadu, 600028

**Dr. Felix S**

Director i/c  
Institute of Fisheries Technology  
Tamilnadu Fisheries University  
Institute of Fisheries Technology,  
Tamilnadu Fisheries University,

Ponner, Chennai,  
Tiruvallur, Tamil Nadu, 601204

**CO-PI:**

**Dr. Kumaraguru Vasaganthi K.P**  
Senior Scientist  
Genetic and Biotechnology Division  
Central Institute of Brackishwater Aquaculture  
#75 Santhome High Road, RA Puram,  
Santhome, Chennai, Chennai - 600028,  
Tamilnadu

**Dr. Shashi Shekhar M**  
Principal Scientist  
NGBD  
Central Institute of Brackishwater Aquaculture  
Central Institute of Brackishwater Aquaculture  
#75 Santhome High Road, RA Puram, Chennai,  
Chennai - 600028, Tamilnadu

**Dr. Nila Rekha P**  
Principal Scientist  
Crustacean Culture Division  
Central Institute of Brackishwater Aquaculture  
#75 Santhome High Road, RA Puram,  
Santhome, Chennai, Chennai - 600028,  
Tamilnadu

**Dr. Gopalakannan A**  
Assistant Professor  
Tamil Nadu Fisheries University  
Tamil Nadu Fisheries University  
Institute of Fisheries Technology  
Tamil Nadu Fisheries University  
Ponneri - 601 204

Tiruvallur  
District, Tamil Nadu, Tiruvallur - 602001  
Tamilnadu

**Dr. Antony Cheryl**  
Associate Professor  
Institute of Fisheries Technology  
Tamilnadu Fisheries University



**ORDER**

S sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled: "Bio-prospecting for anti-osteoporotic collagen peptides derived from fish bones" for a period of 3 Year 0 Month at a total cost of Rs. 5948850 (Rupees Fifty Nine Lakh Forty Eight Thousand Eight Hundred and Fifty Only) on the terms and conditions detailed here under.

**2 The Project :**

**2.1 Title :** "Bio-prospecting for anti-osteoporotic collagen peptides derived from fish bones"

**2.2 Details of the Investigators:**

**Project Coordinator**

**Dr. Jeyashakila Robinson**

Professor

Fish Quality Assurance and Management

Tamilnadu Fisheries University

Fisheries College and Research Institute, Thoothukudi, Tamilnadu,

628008

**Principal Investigators:**

**Prof. Jeyashakila Robinson**

Professor

Fish Quality Assurance and Management

Tamilnadu Fisheries University

Fisheries College and Research

Institute, Thoothukudi, Tamilnadu,

628008

**Prof. Balasubramanian**

**Senthil Kumar**

Professor

Animal Biology

University of Hyderabad

Department of Animal Biology

School of Life Sciences

Centre for Advanced Studies

University of Hyderabad, P.O.

Central University Gachibowli,

Telangana, Hyderabad,

Hyderabad, Telangana. 500046

**CO-PI:**

**Ms. Alamelu V**

Assistant Professor  
Fish Quality Assurance and Management  
Tamilnadu Fisheries University  
Fisheries College and Research Institute  
Tamil Nadu Fisheries University, Harbour  
Bypass Road, Thoothukudi, Thoothukudi -  
628008, Tamilnadu

**Prof. Jeyasekaran Goevaretinam**

Professor and Head  
Fish Quality Assurance and Management  
Tamilnadu Fisheries University  
Fisheries College and Research Institute  
Tamil Nadu Fisheries University, Harbour  
Bypass Road, Thoothukudi, Thoothukudi -  
628008, Tamilnadu

**Dr. Kalyanmurthi V**

Assistant Professor  
Basic Sciences  
Tamilnadu Fisheries University  
Fisheries College and Research Institute  
Tamil Nadu Fisheries University, Harbour  
Bypass Road, Thoothukudi, Thoothukudi -  
628008, Tamilnadu

**3.3 Objectives:**

**Institute wise Objectives:**

**Tamilnadu Fisheries University**

1. Extraction and characterization of collagen peptides derived from fish bone through enzymatic hydrolysis
2. Study on the effect of bone collagen peptides on post translational modifications and bone mineralization in osteoblastic cell culture system
3. Preparation of dietary supplements using bone collagen peptides and their characterization.

**University of Hyderabad**

1. To study the anti-osteoporotic activities of fish bone collagen peptides in osteoblastic cell lines/ animal model system
2. To evaluate the fish bone collagen peptide dietary supplements for cytotoxicity

Annexure for C7

Partnership with Private Sector made during 2018

S. No.	Name of the Private sector
1.	M/s. SERIBU Bio Systems SDN. BHD., Malaysia
2.	M/s. King Aquatic, Chennai
3.	M/s. Jayashri Hatchery, Chennai
4.	M/s. Certitude farm, Vettaikaraniruppu, Nagapattinam district
5.	M/s. CPF India Private Ltd., Chennai
6.	M/s. AlgalR Nutra Pharms Pvt. Ltd., Thanjavur

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is made this 14th day of March 2018

**Between:**

**TAMIL NADU DR. J. JAYALALITHAA FISHERIES UNIVERSITY, First Line Beach Road, Nagapattinam-611 011, Tamil Nadu, India (hereinafter referred to as TNJFU)**

**And**

**SERIBU BIO SYSTEMS SDN BHD Co. No. 16819-K** incorporated in Malaysia with business address at 6A Office Suites, Scott Sentral Service Suites Jalan Scott off, Jalan Tun Sambanthan, Sentral Brickfields, 50470 Kuala Lumpur. It was formed in 1973 as a technology based Construction Company. It is owned and managed by **Dr. Chandra L. Ramprakash** (Malaysian IC 680507106333 & hereinafter referred to as **CLR**), is a businessman operating a conglomerate of business activities ranging from Construction, Real Estate Development to Horticulture and Aquaculture in Malaysia.

**WHEREAS TNJFU** is a highly respected university in Tamil Nadu, India and is ranked Number one among the Fisheries Universities in India. The University was set up in 2012 as per TNEU Act 12/2012 of Govt. of Tamil Nadu, India. TNJFU is involved in studies in different disciplines of fisheries and an institution of higher learning, which has been mandated to provide high quality training and education in the fields of fisheries. TNJFU offers B.F.Sc, B.E (Fisheries Engineering), and B.Tech (Biotechnology) at Undergraduate level, M.F.Sc in the disciplines of Aquaculture, Fisheries Resource Management, Fish Processing Technology, Fish Quality Assurance and Management, Fisheries Engineering and Technology, Aquatic Environment Management, Fish Biotechnology, Aquatic Animal Health, Fish Pharmacology & Toxicology, Fish Genetics & Breeding, Fisheries Extension, and Fisheries Economics at Postgraduate level and Ph.D. in the disciplines of Aquaculture, Fisheries Resource Management, Fish Processing Technology, Fish Quality Assurance and Management, Aquatic Environment Management, Aquatic Animal Health, Fisheries Extension, and Fisheries Economics at doctoral level. (More details can be found on our website

[www.tnjfu.ac.in](http://www.tnjfu.ac.in)). Besides teaching, the TNJFU has been involved in carrying out research activities in different fields of fisheries as well as in imparting skill developmental training programs for the fisherfolk, fish farmers, and fish entrepreneurs.

**WHEREAS SERIBU BIO SYSTEMS SDN BHD** is a reputed construction company with specialist expertise in Sports Facility Construction and has the capacity and resources to undertake Civil, Structural, Mechanical and Electrical works. The Company's main focus is now in technical innovations.

**WHEREAS** by a letter dated 6th February 2018, TNJFU has nominated CLR as an **Adjunct Faculty (Scientist) Member** for one year term and has offered CLR to associate with the Teaching Faculty of TNJFU.

**WHEREAS** CLR has the technology and the technical acumen to design and build stand-alone RAS and is offering **SERIBU BIO SYSTEMS SDN BHD** (hereinafter referred to as **SBS**) as his vehicle to undertake and implement his propositions under the MoU.

#### **THE SPIRIT OF THE MOU**

Both parties are desirous of entering into this Memorandum with great goodwill to propel TNJFU into a transformational trajectory.

This Memorandum of Understanding has the express intention of forging a relationship of cooperation between TNJFU and CLR and SBS where all parties shall mutually benefit from the synergies thus generated.

#### **TERMS**

1. Both parties shall collaborate so as to enhance the basic curriculum of TNJFU to include content covering technology and technical knowledge related to Fisheries particularly aquaculture with a vision to produce graduates with not just the expertise in the bio-scientific knowledge in fisheries but also with the holistic knowledge and ability to design / innovate and manage the technical aspects of

farming with a keen sense of farm economics and the hands-on ability to solve technical problems as they arise in farm operations.

2. **TNJFU** shall appoint **SBS** as the agent of **CLR** to provide consultancy services to craft out course modules in respect of Item 1 above.
3. **SBS** shall provide technology transfer of variety of innovations which would serve enhance aquaculture productivity, to **TNJFU**.
4. **SBS** shall impart key technical knowledge from disciplines such as Civil, Structural, Mechanical and Electrical, which shall be structured to meet the requirements of Aquaculture farming.
5. **SBS** shall offer adjunct courses on precision engineering, metal fabrication, machine repair, etc.
6. **SBS** shall offer opportunities to interested students to pursue practical training via attachment programs at **CLR's** aquaculture farms in **Myanmar**. While the training costs shall be subsidized by **SBS**, the students shall bear costs such as flight travel. **SBS** shall provide accommodation and meals at the farm sites for the trainees. **SBS** shall consider in providing minimum working allowance to the trainees on merit basis.
7. **TNJFU** for its part recognize the training Certificates by **SBS** and shall offer participating students academic credits as a benefit to attract students.
8. **CLR** shall personally conduct ad-hoc hands-on courses to impart his specialist technical knowledge and inculcate an innovative spirit into **TNJFU's** students.
9. **TNJFU** shall offer its facilities such as labs & other research resources, free of charge to **CLR, SBS** and students to undertake research, to experiment and fabricate as would be necessary.
10. **TNJFU** shall offer additional facilities for **CLR, SBS** and students, such as fabrication yards, testing & commissioning.

11. **TNJFU, SBS and CLR** shall collaborate to undertake research to develop innovations in aquaculture and or related fields for mutual benefit and to jointly patent any innovations which would be patentable.

12. **TNJFU, SBS and CLR** shall jointly engage in commercial opportunities created by their collaboration and innovations and shall share equitably in the financial benefits therefrom.

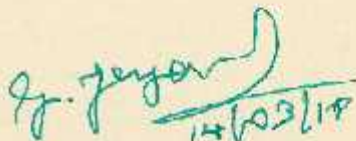
13. **TNJFU, SBS and CLR** shall engage in Promotions, Advertisements, Expos, Trade Events, etc. in order to promote awareness and market the innovations.

This Memorandum of Understanding is entered into in the spirit of mutual trust and cooperation among all parties.

**IN WITNESS WHEREOF** the Parties hereto have entered into this Memorandum of Understanding the day and year first above written.

**SIGNED BY:**

For and on behalf of  
**TAMIL NADU DR. J. JAYALALITHAA  
FISHERIES UNIVERSITY, INDIA**

)   
.....

For and on behalf of  
**SERIBU BIO SYSTEMS SDN BHD, MALAYSIA** )

  
.....

16

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
TAMIL NADU FISHERIES UNIVERSITY (TNFU)  
NAGAPATTINAM, TAMIL NADU  
AND  
KING AQUATIC  
KOLATHUR, CHENNAI, TAMIL NADU**

Date: 05.01.2018

The Memorandum of Understanding (MoU) between **TAMIL NADU FISHERIES UNIVERSITY (TNFU)**, Nagapattinam, Tamil Nadu, India (herein after referred as the "University") and **KING AQUATIC**, Kolathur, Chennai, Tamil Nadu, India (herein after referred to as "Lessee") is intended to facilitate from this day **05.01.2018** in **"Providing fish cage culture facility(15 cages) at Kolavai lake on lease basis for one year to culture freshwater ornamental fishes"**.

**Scope of the MoU**

The cage fish culture unit established at Kancheepuram Chengalpattu Aquaculture Technology Training and Incubation Centre (herein after referred as "KC ATTIC") under the administrative and technical control of Director, Directorate of Aquaculture Technology Training and Incubation, ECR, Muttukadu, Kancheepuram dt. is the subject of this MoU and this MoU is limited with that only. The MoU will be facilitated and monitored by the University by its authorized officers periodically. Similarly the work part of the MoU shall be taken care by the "LESSEE" Independently.

**The MOU envisages the following:**

1. Out of 32 fish cages of 4x4 m size available in Kolavai lake, 15 cages are given on lease basis for one year from the date of stocking of fishes. 15 cages include the HDPE floats, inner nets and outer net.
2. The LESSEE is permitted to use the cage shed however without disturbing the activities carried out by the University.
3. The floating platform shall be used to transport men and materials without disturbing the activities carried out by University.
4. The staff, students and trainees of University shall visit the cage facility and there shall be free access to them from the LESSEE.



**Both parties agree as follows:**

1. The above components shall be implemented under intimation to their respective controlling officers and getting their approval in writing.
2. This MOU shall be continuing in the effect for a period of 1 (one) year since the date of stocking of fishes in the cages and may be extended by mutual agreement.
3. The lease amount for one cage is Rs.3000/-per year and the total amount is Rs.45,000/- for 15 cages for one year. The lease amount shall be paid in two installments equally and the first installment of Rs.22,500/- shall be paid before start of fish culture activity and the balance amount of Rs.22,500/- shall be paid by the end of 6 months period of lease period.
4. The LESSEE shall maintain/monitor the above said facilities for fish culture purpose only and the running cost could be managed by the LESSEE.
5. The LESSEE shall cause no damage to the facilities created or to be created and on handing over the facilities back to the University any such damage shall be liable to be compensated suitably.
6. The LESSEE shall not make any additions/alterations to the cages allotted for fish culture.
7. The LESSEE should not share the facilities with other institutions or private parties in a different memorandum of understanding or through sub-lease.
8. The maintenance charges if any to the cages to be borne by the University.
9. The University reserves the right to implement any other programmes in the same premises or nearer to the facility.
10. After completion of lease period, the facilities shall be handed over to the University, if there has been no further agreement between both the parties.
11. Both the parties are entitled to terminate the lease by giving 3(three) months notice in writing to the other in advance.
12. All specific projects to which this MOU may lead shall be evaluated on a regular basis by the designated authorities of both the parties. For conditions of the linkage and terms of the agreement not covered by this MOU or for any issues arising while the project is in operation, both the parties agree to refrain from unilateral action and resort to problem solving mission through negotiations and talks.

Agreed by

V.Thilagavathi

V.Thilagavathy  
Proprietor  
King Aquatic  
Kolathur, Chennai, Tamil Nadu, India

Date: 05.01.2018.

*[Handwritten signature]*

**Director of Research**  
Tamil Nadu Fisheries University  
First Line Beach Road,  
Nagapattinam - 611 001.  
Nagapattinam, Tamil Nadu, India

Date:

Witnessed by

① Veerai

S/o. Shannu Vasanthan  
# 3 ASWIMPTS OFF, Babu Nagar  
Kolathur Chennai 99.

*[Handwritten signature]*

**Dr.N.Polx., M.F.Sc., Ph.D**  
Director IIS  
Institute of Aquaculture Technology  
Training and Innovation  
Tamil Nadu Fisheries University  
605 004, Alukadu, Karaikal Dt. - 605 003



தமிழ்நாடு தமிழ்நாடு TAMILNADU

BN 933192

26 MAR 2018 6:32


Jayashri Hatchery

P.N. ஸ்ரீனிவாசன்  
தமிழ்நாடு  
சென்னை - 600 104  
சென்னை - 600 104

**MEMORANDUM OF UNDERSTANDING BETWEEN  
TAMIL NADU Dr. J. JAYALALITHAA FISHERIES UNIVERSITY (TNJFU),  
NAGAPATTINAM, TAMIL NADU  
AND  
M/S. JAYASHRI HATCHERY, CHENNAI**

The Memorandum of Understanding (MoU) between **TAMIL NADU Dr. J. JAYALALITHAA FISHERIES UNIVERSITY (TNJFU)**, Nagapattinam, Tamil Nadu, India (herein after referred as the "University") and **M/S. JAYASHRI HATCHERY, CHENNAI, Tamil Nadu, India** (herein after referred to as "Collaborator") is intended to facilitate from **01.04.2018** in operating the "Shrimp Rearing facility" at Kanyakumari Ganapathipuram Centre for Sustainable Aquaculture (herein after referred to as "KKGCSA"), Ganapathipuram, Kanyakumari 629 502. The linkage hereby formed shall further assisted in achieving mutual relationship between both the parties and furthering the adoption of technology and shrimp seed production.

  
**JAYASHRI HATCHERY**  
No. 63/26, Gangai Amman Koil Street,  
CHOOLAIMEDU,  
CHENNAI-600 094.

  
Director of Research  
Tamil Nadu Fisheries University  
1<sup>st</sup> Line Beach Road  
Nagapattinam - 611 001

## MEMORANDUM OF UNDERSTANDING

Between

**Tamil Nadu Fisheries University, Nagapattinam**

And

**Certitude Farms, Nagapattinam**

This Memorandum of Understanding (MOU) is between the Tamil Nadu Fisheries University, Nagapattinam – 611 001 and represented in this MOU by its Director of Research, hereinafter referred to as "TNFU", and the Certitude Farms, a proprietorship firm Company registered under the Registrar of Firms, Govt. of India at Vettaikaranirrupu, Nagapattinam – 611 112 (hereinafter for brevity sake referred to as "CF" which expression shall include unless repugnant to the subject or context herein its successors and assigns).

WHEREAS, TNFU is a leading University, a centre for studies in many disciplines of fisheries and an institution of higher learning which has been mandated to provide high quality training and education in the fields of fisheries. TNFU offers B.F.Sc, B.U. (Fisheries Engineering) and B.Tech (Biotechnology) at Undergraduate level, M.F.Sc in the disciplines of Aquaculture, Fisheries Resource Management, Fish Processing Technology, Fish Quality Assurance and Management, Fisheries Engineering and Technology, Aquatic Environment Management, Fish Biotechnology, Aquatic Animal Health, Fish Pharmacology, Fisheries Extension, and Fisheries Economics at Postgraduate level and Ph.D. in the disciplines of Aquaculture, Fisheries Resource Management, Fish Processing Technology, Fish Quality Assurance and Management, Aquatic Environment Management, Aquatic Animal Health, Fisheries Extension, and Fisheries Economics at doctoral level. The TNFU also offers Ph.D. programme in Life Sciences.

WHEREAS, CF, Vettaikaranirrupu, Nagapattinam, established in 1994 with total water spread area of 12 hectares, has been approved by the Coastal Aquaculture Authority of India, Chennai for the farming of *Penaeus monodon* and *Penaeus vannamei*. It is owned by Shri. V. Balasubramaniam, MBA, General Secretary of Prawn Farmers Federation of India. The water for the farms is fed from Harishchandra river. The production capacity of the farm is 60 metric tons per year. In year 2007, Shri. Balasubramaniam played a major role to bring together the Shrimp Farmers' Associations of all the nine Coastal States of India and formed a National Federation called the Prawn Farmers Federation of India. In the year 2008, he was nominated by MCFDA to the Board of the Food Safety and Standards Authority of India,

Government of India, as a farmer's representative and his term has been extended till 2016. In year 2013, the Central Institute of Brackishwater Aquaculture (CIBA), Government of India, appointed him as a Member in the Governing Council of its Business Development Unit. He was appointed to the World Aquaculture Society's Asia Pacific Chapter as a member in its Executive Advisory Council. Recently he was elected as an Executive Council member of the Society of Aquaculture Professionals, India. His farms have been adopting latest shrimp culture technologies.

WHEREAS, the TNFU and CF have mutual interest in fostering collaboration and agree that there is a need to have MOU under which detailed work plans can be developed and implemented.

NOW THEREFORE, TNFU and CF inspired by their common objectives to further promote and accelerate research on aquaculture and; have entered into this MOU under the terms and condition set forth in the following articles:

**NOW, THEREFORE, IT IS AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:**

1. CF shall provide training to the students of TNFU in different aspects of aquaculture activities in any of its farms by giving them local accommodation and hospitality, if needed, during the period of the training
2. CF shall provide its farms for conducting research by the staff and students of TNFU by giving them local accommodation and hospitality, if needed, during the period of the training
3. CF shall provide the test / study details to TNFU along with sufficient quantity of samples to be tested at the facility of TNFU.
4. TNFU on finalization of project details with CF shall conduct the trials as per the agreed protocol and procedure in the farms of CF.
5. TNFU upon completion of trials shall provide to CF a complete and detailed test report along with raw data and of the study conducted by TNFU.
6. TNFU hereby agrees that testing / trial frequency may be increased or decreased depending on requirement of CF and testing / trial shall be conducted within the stipulated time frame as mutually agreed by both the parties in writing

7. No amendment or variation of this Agreement shall be effective unless in writing and signed by a duly authorized representative of each of the Parties.
8. The Parties declare that they each have the right, power and authority and have taken all action necessary to execute and deliver, and to exercise their rights and perform their obligations under this Agreement.
9. This Agreement and the documents referred to in it, constitute the entire Agreement and understanding of the Parties and supersede any previous Agreement between the Parties relating to the subject matter of this Agreement.
10. Any dispute or difference arising hereunder shall, unless the parties can arrive at an amicable settlement, be referred to a single arbitrator if the parties hereto agree upon one, otherwise to the joint arbitration of two arbitrators, one to be appointed by each of the parties hereto or any statutory modification or re-enactment thereof for the time being in force shall apply.

IN WITNESS WHEREOF the parties hereto have executed these presents the day, the month and the year first hereinabove written.

Signed by



For Tamil Nadu Fisheries University  
Nagapattinam

**Director of Research**  
Tamil Nadu Fisheries University  
First Line Beach Road,  
Nagapattinam - 611 001.

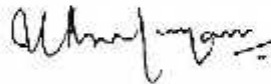
Date :

Witnessed by



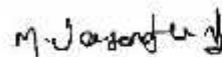
For Tamil Nadu Fisheries University  
Nagapattinam

Date : 07/02/18



For Certitude Farms  
Nagapattinam

Date : 07.02.2018



For Certitude Farms  
Nagapattinam

Date : 07/02/18



19

**MEMORANDUM OF UNDERSTANDING  
BETWEEN Tamil Nadu Dr. J. Jayalalithaa Fisheries University  
AND CPF (India) Private Limited**

**1. Parties:** This Memorandum of Understanding (hereinafter referred to as "MOU") is made and entered into by and between the Tamil Nadu Dr. J. Jayalalithaa Fisheries University, whose address is Vettar River View Campus, Nagapattinam 611 002, Tamil Nadu, India, and the CPF (India) Private Limited, whose address is Reg. Office: F2, 1st Floor, No.40, 2nd Street, Spartan Nagar, Mogappair East, Chennai - 600 037.

**2. Purpose:** The purpose of this MOU is to establish the terms and conditions under which both the parties unitedly function to train scientifically and technically the fishery professionals required for the industry as part of the "In-plant Training Curriculum" of the Tamil Nadu Dr. J. Jayalalithaa Fisheries University.

The Tamil Nadu Dr. J. Jayalalithaa Fisheries University, being a premier institute in the country is providing the requisite scientific and technical personnel through its state of the art professional degree and education system. The fish and shrimp industry in India is registering an upward growth with dearth for skilled and technical personnel. Whereas CPF (India) Private Limited, an international organization with demonstrated capabilities and skill in aquaculture has contributed richly to the growth of fish and shrimp industry in the country. Considering the customization of manpower to suite the industry both the parties have come down to sign an MOU wherein the Tamil Nadu Dr. J. Jayalalithaa Fisheries University, will depute the final year undergraduate students to rigorous "In-plant training" as part of the curriculum at designated hatchery/farm facility of CPF (India) Private Limited, where in the experts at CPF (India) Private Limited impart the required training to mould them to suit the industry.

**3. Term of MOU:** This MOU is effective upon the day and date last signed and executed by the duly authorized representatives of the parties to this MOU and the governing bodies of the parties' respectively and shall remain in full force and effect for not longer than 04 years. This MOU may be terminated, without cause, by either party upon written notice.

1 | Page

**MEMORANDUM OF UNDERSTANDING**

**Between**

**Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam**

**And**

**AlgalR NutraPharms Pvt. Ltd., Thanjavur**

This Memorandum of Understanding (MOU) is between **Tamil Nadu Dr. J. Jayalalithaa Fisheries University**, Nagapattinam 611 002, represented by its Director of Research, hereinafter referred to as "TNJFU", and **AlgalR NutraPharms Pvt. Ltd.**, registered under the Companies Act-2013, located at S. No. 259/1Q1,1Q2, 1R1 and 1R2, Palayapatti-North, Thanjavur-613402, represented by its Managing Director (hereinafter for brevity sake referred to as "AlgalR" which expression shall include unless repugnant to the subject or context herein its successors and assigns).

WHEREAS, TNJFU is a leading University, a centre for studies in many disciplines of fisheries and an institution of higher learning which has been mandated to provide high quality training and education in the fields of fisheries. TNJFU offers B.F.Sc, B.Tech. (Fisheries Engineering), B.Tech. (Biotechnology) and B.Tech. (Food Technology) at Undergraduate level, M.F.Sc in 13 disciplines of Fisheries viz., Aquaculture, Fisheries Resource Management, Fish Processing Technology, Fish Quality Assurance and Management, Fisheries Engineering and Technology, Aquatic Environment Management, Fish Biotechnology, Aquatic Animal Health, Fish Genetics & Breeding, Fish Pharmacology & Toxicology, Fish Nutrition & Feed Technology, Fisheries Extension, and Fisheries Economics at Postgraduate level and Ph.D. in 10 disciplines of Fisheries viz., Aquaculture, Fisheries Resource Management, Fish Processing Technology, Fish Quality Assurance and Management, Aquatic Environment Management, Aquatic Animal Health, Fish Biotechnology, Fisheries Engineering and Technology, Fisheries Extension, and Fisheries Economics at doctoral level. The TNJFU also offers Ph.D. degree programme in Life Sciences.

WHEREAS, AlgalR is engaged with manufacturing of omega-3 fatty acids from microalgae for human and animal nutrition. In addition to omega-3 fatty acids, AlgalR is also manufacturing feed supplements for promoting growth and resistance to disease in shrimp.



WHEREAS, the TNJFU and AlgaIR have mutual interest in fostering collaboration and agree that there is a need to have MOU under which detailed work plans can be developed and implemented.

NOW THEREFORE, TNJFU and AlgaIR inspired by their common objectives to further promote and accelerate research on aquaculture and; have entered into this MOU under the terms and condition set forth in the following articles:

**NOW, THEREFORE, IT IS AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:**

1. **AlgaIR** shall provide training to the students of **TNJFU** in different aspects of aquaculture activities in any of its farms by giving them local accommodation and hospitality, if needed, during the period of the training;
2. **AlgaIR** shall provide its factory facilities for conducting research by the staff and students of **TNJFU** by giving them local accommodation and hospitality, if needed, during the period of the training;
3. **AlgaIR** shall provide the test / study details to **TNJFU** along with sufficient quantity of samples to be tested at the facility of **TNJFU**.
4. **TNJFU** on finalization of project details with **AlgaIR** shall conduct the trials as per the agreed protocol and procedure in the factory facilities of **AlgaIR**.
5. **TNJFU** upon completion of trials shall provide to **AlgaIR** a complete and detailed test report along with raw data and of the study conducted by **TNJFU**.
6. **TNJFU** hereby agrees that testing / trial frequency may be increased or decreased depending on requirement of **AlgaIR** and testing / trial shall be conducted within the stipulated time frame as mutually agreed by both the parties in writing.
7. **TNJFU** and **AlgaIR** shall jointly engage in commercial opportunities (such as Patents, IPRs) created by their collaboration and innovations and shall share appropriately in the financial benefits therefrom.
8. This MOU is effective upon the day and date last signed and executed by the duly authorized representatives of the parties to this MOU and shall remain in full force and effect for not longer than five (5) years..

9. No amendment or variation of this Agreement shall be effective unless in writing and signed by a duly authorized representative of each of the Parties.
10. The Parties declare that they each have the right, power and authority and have taken all action necessary to execute and deliver, and to exercise their rights and perform their obligations under this Agreement.
11. This Agreement and the documents referred to in it, constitute the entire Agreement and understanding of the Parties and supersede any previous Agreement between the Parties relating to the subject matter of this Agreement.
12. Any dispute or difference arising hereunder shall, unless the parties can arrive at an amicable settlement, be referred to a single arbitrator if the parties hereto agree upon one, otherwise to the joint arbitration of two arbitrators, one to be appointed by each of the parties hereto or any statutory modification or re-enactment thereof for the time being in force shall apply.

IN WITNESS WHEREOF the parties hereto have executed these presents the day, the month and the year first hereinabove written.

Signed by

*[Handwritten Signature]*  
25/09/18

For Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam

*[Handwritten Signature]*  
25/09/2018

For AlgalR NutraPharms Pvt. Ltd., Thanjavur

Date: 25.09.2018

Witnessed by

*[Handwritten Signature]*  
25/09/18  
Dr. B. SIVAKAMURTHY  
Dean

For Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam

Date: 25/9/2018

*[Handwritten Signature]*  
25/09/2018  
V. MUTHUKUMAR

For AlgalR NutraPharms Pvt. Ltd., Thanjavur

Date: 25/9/18

Date: 25/9/2018

Annexure for C8

Adjunct Faculty Coming from Outside University



**TAMIL NADU DR. J. JAYALALITHAA FISHERIES UNIVERSITY**

**Dr. A. SRINIVASAN, Ph.D.,**  
Registrar /c.

**FIRST LINE BEACH ROAD,  
NAGAPATTINAM - 611001 - INDIA**

Tel : 04365 - 243085  
Fax : 04365 - 243087  
E-mail : registrar@tnfu.ac.in  
Web : www.tnfu.ac.in

**Lr.No.7926/S1/TNFU/2018 dt.05.06.2018**

**NOMINATION OF ADJUNCT FACULTY (Professor)**

I wish to inform that the Vice-Chancellor, Tamil Nadu Fisheries University, Nagapattinam is pleased to offer the honorary position of an **Adjunct Faculty (Professor) Member** of this University in you for a period of one year from the date of your acceptance of this offer to have the pleasure of your associations with the teaching faculty for the development / improvement of the Teaching, Research and Extension in our University.

It is further our pleasure to notify your possible contributions as Adjunct Faculty (Professor) below:

- Associating with teaching and research of Undergraduate and Post graduate education in whatever way it is possible for you.
- Associating with the research that is underway in the research projects of this University.
- Associating with a consultancy service of research or extension for the University.
- Associating with any clinical activity / surveillance or any investigation work that is taken up by the University.
- Associating with any other activities as identified by the University from time to time.

The Adjunct Faculty (Professor) shall be provided with support facilities like network access, library access and other logistics whenever they visit the University / constituent units of the University as per the policy of the University and it will be as per the Rules and Regulations of the University. Simpler terms governing this honorary position are attached for your reference.

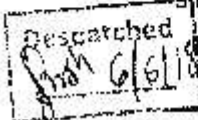
Kindly acknowledge the receipt of this communication as a token of acceptance along with your Bio-data for reference.

Encl.: as above.

To:

**Dr. Siva K.P. Sivakumaran,**  
68, Anne Road Knox Field,  
Victoria - 3180, Australia

CC: Ali Dean's, TNFU - for kind information  
PA to VC, TNFU, Nagapattinam  
Stock File / Spare



*A. Srinivasan*  
REGISTRAR /c.

*6/6/18*



**TAMIL NADU DR. J. JAYALALITHAA FISHERIES UNIVERSITY**

Dr. A. SRINIVASAN, Ph.D.,  
Registrar I/c.,

FIRST LINE BEACH ROAD,  
NAGAPATTINAM - 611001 - INDIA

Tel: 04365 - 240088  
Fax: 04365 - 240087  
E-mail: registrar@tnfu.ac.in  
Web: www.tnfu.ac.in

**Lr.No.7026/S1/TNFU/2018 dt.23.03.2018**

**NOMINATION OF ADJUNCT FACULTY (Scientist)**

I wish to inform that the Vice-Chancellor, Tamil Nadu Dr.J. Jayalalithaa Fisheries University, Nagapattinam is pleased to offer the honorary position of an **Adjunct Faculty (Scientist) Member** of this University to you for a period of one year from the date of your acceptance of this offer to have the pleasure of your associations with the teaching faculty for the development / improvement of the Teaching, Research and Extension in our University.

It is further our pleasure to notify your possible contributions as Adjunct Faculty (Scientist) below:

- a. Associating with teaching and research of Undergraduate and Post graduate education in whatever way it is possible for you.
- b. Associating with the research that is underway in the research projects of this University.
- c. Associating with a consultancy service of research or extension for the University.
- d. Associating with any clinical activity / surveillance or any investigation work that is taken up by the University.
- e. Associating with any other activities as identified by the University from time to time.

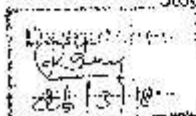
The Adjunct Faculty (Scientist) shall be provided with support facilities like network access, library access and other logistics whenever they visit the University / constituent units of the University as per the policy of the University and it will be as per the Rules and Regulations of the University. Simpler terms governing this honorary position are attached for your reference.

Kindly acknowledge the receipt of this communication as a token of acceptance along with your Bio-data for reference.

Encl.: as above.  
To

Dr.N. Sukumaran, M.Sc., Ph.D.,  
Joint Director - Technical  
ABC Techno Labs India Private Limited,  
No.2, 2<sup>nd</sup> Street, Thangam Colony  
Anna Nagar West, Chennai 600 040.

CC: All Dean's, TNFU - for kind information  
PA to VC, TNFU, Nagapattinam  
Stock File / Spare



23/3/18  
REGISTRAR I/c.,

23/3/18

ok

Annexure for C9

Enterprises / start-ups promoted by the University

S.No.	Name of the Enterprises / start-ups	Name of the Business
1	Shibin Exports, Chengalpattu	Spirulina-Farming and Marketing
2	S2P2 International, Kancheepuram	Spirulina-Farming and Marketing
3	Zion Marine, Chennai	Production and Marketing of fish and fishery Products
4	Raj Industries, Chennai	Production and Marketing of fish and fishery Products
5	David Rajasekaran, Ponneri, Thiruvallur District	Production and Marketing of fish and fishery Products

Annexure for C10

List of Students employed in Public/ Private/Banking Sectors

Total number of students passed out in 2018 = 72  
 Total number of students employed = 9  
 % of students employed = 12.5%

S.no.	Name of the student	Name of the company
1.	Mangayarkarasi M	The Waterbase Ltd., Nellore
2.	Sakthisaravanan N	
3.	Vanmathi R	
4.	Pandi P	TNFDC, Chennai
5.	Naveen Raj	
6.	Sathish Kumar K	Working in Tanzania
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