

# TNFU NEWS LETTER

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## FROM THE DESK OF VICE – CHANCELLOR.....



TNFU is pleased to increase the intake of students strength for B.F.Sc degree program from 110 to 120 to produce quality professionals to cater the requirements of the sector.

Further, fortunately we got the financial sanction of the teaching and non-teaching posts to Institute of Post Graduate Studies.

I also feel very honoured to be a part (along with TNAU & TANUVAS) in auspicious award ceremony of conferring 'Yerarignar' Award to one of our country's greatest scientists, Prof. M.S. Swaminathan for his outstanding achievements in Indian Agriculture.

To seed the innovative science and technologies in shrimp aquaculture we've conducted an International workshop on "Innovative Integration and Intensification in Indian Shrimp Farming" and Thai Consulate General was our Chief Guest to this technology meet.

The famous mobile messaging platform ,Whatsapp group of University officers was formed and instant sharing is being carried out for work reports updation.

Validation of 'Aadhar based Biometric attendance systems' to regularise the attendance of teaching and non- teaching staff is being attempted successfully in all our TNFU's constituent units.

Proposal on declaring Loach fish as state fish of Tamil Nadu was sent to the government to mark an icon of the importance of fisheries and aquaculture in Tamil Nadu state.

To give an insight on the role of microbiome in aquaculture,a talk on "Macro role of Microorganisms in Aquaculture" was delivered in the 11th Indian Fisheries and Aquaculture Forum held at Kochi.

TNFU is gaining its attention in many countries and we host the first steering committee meeting for conducting major International event "Asian Pacific Aquaculture-2019" by involving all ICAR-Central Fisheries Institutes and Industries.

We achieved national standing in terms of academic performance and I seek the support and encouragement of all to improve our International standards to raise our university as landmark of Fisheries Education in India!

**Prof. S. Felix**  
Vice - Chancellor



## EVENTS/MEETINGS

**First Steering Committee Meeting for Asian Pacific Aquaculture Event (APA'19)**

World Aquaculture Society-Asian Pacific Chapter (WAS-APC) has planned to organize an International event



in Chennai, India during 2019. In this regard, the first meeting of the steering committee for Asian Pacific Aquaculture (APA'19) hosted by the TNFU was held on 04.12.2017 at Chennai. The agenda of the meeting included discussion on technical sessions, theme and logo, management and co-ordination roles and responsibilities of chairs to bring in several industrial sponsorship. Dr.S.Felix, President-elect-WAS APC will serve as the National Co-chair and Dr. Farshad Shishehchian, Past President of WAS-APC was selected as the International



co-chair. Dr.J.K.Jena, Deputy Director General-Fisheries of ICAR helped and facilitated the cooperation of all the Central and State Fisheries Institutes. The meeting was attended by Directors, Vice-Chancellors and Deans of the central institutes such as CIFE, CIFT, CIFRI, CIBA, DCWF and state fisheries institutes of karnataka, Kerala and Andhra Pradesh. The committee also includes few prominent retired scientists viz. Dr. Mohan Joseph, Modayil, Dr. Indrani Karunasagar and Dr.A.G. Ponniah apart from few industrial and media representatives.

**IIIS'17**

The International Workshop on Innovative Integration and Intensification in Indian Shrimp Industry "IIIS'17" jointly organized by the TNFU and World Aquaculture



Society - Asian Pacific Chapter (WAS – APC) was conducted in Chennai on 03.12.2017. During the inaugural function of the event, Dr. S.Felix, Vice-Chancellor, TNFU underscored the vital role played by shrimp farm industry in the country's foreign exchange earnings and need to follow the best management practices for enhancing shrimp production. Dr. A.G. Ponnaiah, Former Director, ICAR – CIBA and the Guest of Honour highlighted the importance of the workshop. Mrs.Krongkanit Rakcharoen, Royal Thai Consulate, the Chief Guest of the day stated that the deliberations of the workshop would benefit the shrimp farmers to integrate the innovations with their existing knowledge and experience. Dr.Farshad Shishehchian, President and CEO, WAS delivered felicitation address. The inaugural program was followed by technical deliberations including talks by International experts and Indian scientists. Dr. B. Ahilan, Dean i/c, FCRI, Ponneri was the convener of the program and Th. Samuel Moses, Asst. Professor and Ms. M. Menaga, Ph.D. Scholar were taking care of the overall management of the event.

**Soil Health Day observed in TNFU  
FCRI, Thoothukudi**

As per the directions of the ICAR, Soil Health Day was celebrated at the FCRI, Thoothukudi on 05.12.2017. Inaugurating the event, Dr. G. Sugumar, Dean highlighted the importance of celebrating soil health day and the role of soil in aquaculture. Mr. Ranjith Manley, a progressive shrimp farmer and Adjunct Faculty of Tamil Nadu Fisheries





University, was the chief guest for the program. He highlighted the major problems in aquaculture and the role of probiotics in maintaining the soil health. Dr. C.B.T. Rajagopalsamy, Professor and Head, Dept. of Aquaculture spoke on "Biofloc in aquaculture system". Twelve farmers and PG students of this institute were benefitted from this program.

#### FCRI, Ponneri

Soil health day was celebrated by FCRI, Ponneri on 5.12.2017 at Elavoor. An Awareness campaign on "Importance of Water and Soil Quality in Aquaculture" was conducted and about 30 villagers participated. The soil and water samples from shrimp farms were collected and analysed on the spot with the Mobile Aquaculture Quality Testing Lab. Awareness on the importance of water and soil quality for aquaculture and the optimum range of parameters to be maintained for successful culture and the details of tests being done in the laboratories of FCRI, Ponneri was created by distributing leaflets to the participating farmers. The programme was jointly coordinated by Mrs.S.Aruna, Assistant Professor, Department of Aquatic Environment Management and Ms.S.Agnes Daney Angela, Assistant Professor, Department of Fisheries Extension.

#### CoFE, Nagapattinam

Soil health day was celebrated at CoFE, Nagapattinam on 05.12.2017. Er. S. Monikandon, Assistant Professor delivered a guest lecture on 'Techniques for soil stabilization' and demonstrated its methods through videos. Further, BE(FE) students namely Ms. K.Subhikshaya, Ms. K. Sana, and Ms. R. Showmiya presented e-posters on the importance and preservation of



soil quality for a sustainable society. More than 80 participants including students and teachers attended this event. This event was co-ordinated by Dr. D. Kesavan and Dr. Mohammad Tanveer.

#### VICE-CHANCELLOR's VISITS

##### TNFUA, Chennai

Dr. S. Felix, Vice-Chancellor, TNFU visited the TNFUA on 9.12.2017. He presided over the presentation session by



the regular in-service trainees on the marine and inland fisheries profile of all the districts of Tamil Nadu.

##### TNAU-KVK

On 22.12.2017 Dr. S. Felix, Vice Chancellor, TNFU visited the TNAU- Krishi Vigyan Kendra at Sirugamani, Tiruchirappalli district. The Project Coordinator Dr. Ravi introduced the subject matter specialists and administrative



staff to the Vice-Chancellor. The activities of the centre were explained to the Vice-Chancellor.

##### Trichy – Proposed new site

After this, the Vice-Chancellor visited the temporary office and the land given to TNFU for the establishment of Trichy Centre for Sustainable Aquaculture. Future activities to be taken up by the Trichy Centre for Sustainable Aquaculture were planned. Dr.J.Stephen Sampath Kumar, Director, Directorate of Centre for Sustainable Aquaculture,





TNFU and Dr.V.Senthilkumar, Assistant Professor and Head i/c, TCeSA accompanied the Vice-Chancellor.

## STUDENTS' CORNER

### Agricultural Education Day

As directed by the university, the National Agricultural Education Day was celebrated at the IPGS, OMR, Chennai on 05 Dec, 2017. As a part of the program, an elocution competition on "Role of Agricultural Education in India"



was conducted among the students. Ms. S. Abibrintha, I B.Tech (Biotechnology) and Ms. Dhanalakshmi, I M.F.Sc., (Fish Pharmacology and Toxicology) were the winners securing the first and second prizes, respectively.

### Welcome party at the Institute of Biotechnology (IB)

Welcome party for the B.Tech I year (2017-20 Batch) students was organized on 06 Dec, 2017 at TNFU – OMR Campus. Dr. K. Karal Marx, Dean welcomed the freshers of IB- I year students. Subsequently, every new student was conjointly and individually welcomed by senior PG students of the IPGS.

### Credit Seminar for the M.F.Sc. and Ph.D. students (2016-17 Batch) of FCRI, Ponneri

The PG and Ph.D. students of FCRI, Ponneri presented their credit seminars on 19.12.2017 at the conference hall. Dr. S. Felix, Vice-Chancellor chaired the sessions and offered valuable inputs to the students. All the staff, PG and Ph.D. students were present on this occasion.



### Hostel Day celebrations at FCRI, Thoothukudi

Hostel Day for FCRI, Thoothukudi campus was celebrated on 29.12.2017. Hostel day ceremony was held at the Kayal Kalaiaramam of the institute in the evening. Mr.P.Mahendran, I.P.S., Superintendent of Police, Thoothukudi district, the chief guest for the event, spoke on need for improving personal skills. He quoted Poet



Bharathiyar's thoughts in his address. On the occasion, tree plantation was done by the Chief Guest and the dignitaries. Dr.G.Sugumar, Dean presided over the function and commended the responsibility of office bearers of hostels. Dr.P.Jawahar, Warden presented the annual report of the hostels for the year 2017-18. Mr.F.Parthiban, Deputy Warden of the Boys' Hostel welcomed the gathering. Prizes were distributed to the winners of several competitions held on the occasion of the Hostel day celebrations. Mrs.T.Umamaheswari, Mr.P.Arul Manova and Ms.A.Benazir have made all arrangements for the function.

## RESEARCH HIGHLIGHTS

### Peer review of the NABARD proposals at FCRI, Ponneri by the Director of Research

Peer review of the proposals given by the Assistant Professors for submission to NABARD was conducted by the Director of Research in the presence of 3Ps committee members and Heads of the Departments on 21.12.2017 at the FCRI, Ponneri. The PIs of the proposed projects presented their proposals and it was critically examined and suggestions for improvement were offered.

### Challenge study on Phytobiotic fed GIFT strain of *Oreochromis niloticus* with *Streptococcus agalactia* serotype II.

Phytobiotic fed and unfed GIFT tilapia fishes of three months old were divided into three groups stocked approximately at 42 g/L density. All fish received a single intramuscular injection of 0.1 ml of  $1 \times 10^5$ ,  $1 \times 10^6$  and  $1 \times 10^7$  CFU/ml of bacterial suspension in sterile 0.85% (w/v) saline solution. Acute mortalities were present in  $1 \times 10^7$  CFU/ml





where all the fishes died after 10h of injection. Slow mortalities were observed in  $1 \times 10^6$  CFU/ml after 11 h of injection. No fishes died in  $1 \times 10^5$  until 15 h of injection. Post-



mortem evaluation of dead fishes revealed classical lesions associated with fish *streptococcosis*, including exophthalmia.

(Dr. A. Gopalakkannan and Ms. M. Menaga)

#### Effective utilization of slaughter house waste -poultry by-product meal (feather meal) in the feed of GIFT Tilapia.

Evaluation of the efficiency of poultry by product meal (PBM) as an alternative proteins source by replacing fish meal (FM) in the diets of GIFT strain of tilapia (*Oreochromis niloticus*) was carried out in cages installed in the Poondi reservoir. Six iso nitrogenous (30% protein) and isolipidic (7% lipid) diets were formulated incorporating PBM protein by replacing FM protein. Each diet was fed to two replicate groups of GIFT tilapia with a mean initial weight of  $20.38 \pm 0.0678$ g for 60 days in cages. Though the GIFT tilapia fed with control diet (without the incorporation of poultry byproduct meal) attained maximum mean weight gain (116.72g), best food conversion ratio (1.14) and maximum hepatosomatic index (2.47), there was no significant difference ( $P > 0.05$ ) observed among the fishes fed with 40% PBM diet. However significant difference was observed in fishes fed with other diets. Therefore, it was concluded that, poultry by product meal can replace 40% fish meal protein in the diets of GIFT tilapia cultured in reservoir cages without compromising growth, feed

conversion ratio and whole body composition. The cost of preparation of one kg control diet was around Rs. 36.84, whereas the ingredient cost for preparation of one kg poultry by product meal incorporated feed was Rs. 28.04/-. The cost estimate of feed revealed marked reduction in feed cost about Rs. 8.8/- per kg in the test diet compared to the control diet. When compared to commercial feed (Rs.35-40/- per kg) available in the market, a cost reduction of Rs. 6.96 to 11.96/- per kg was recorded in the poultry byproduct meal incorporated feed.

(Mr. Aurobinda Upadhyay and Dr. N. Felix)

#### Molecular identification and phylogenetic relationship of flying fishes of Tamil Nadu Coast

- The three species of flying fishes *Cheilopogon cyanopterus*, *Cheilopogon furcatus*, *Hirundichthys coromandelensis* were collected from Tamil Nadu coast and morphometric and



meristic characters were determined. DNA extracted from three species and amplified with COI gene and the amplified PCR products were sequenced. Sequences were submitted to GenBank, the accession numbers provided by GenBank includes KX443385, KX 443387, KX 455889 for *Cheilopogon cyanopterus*, KX 421799, KX 455890, KX 455888 for *Cheilopogon furcatus* and KX421800, KX443384, KX 443386 for *Hirundichthys coromandelensis*.

(Ms. A. Rathipriya and Dr. K. Karal Marx)

#### OUTREACH PROGRAMS

##### Training on "Tilapia farming" at IPGS, Chennai

Entrepreneurship training on "Tilapia farming" was conducted for five days (27.11.2017 to 01.12.2017) at IPGS, Chennai in which four candidates participated. In their feedback, the trainees expressed that the training was effective and the knowledge imparted through the training course was sufficient for them to establish tilapia farms.

##### Training on 'Water quality management in aquaculture systems' at FCRI, Thoothukudi

Department of Aquatic Environment Management, FCRI, Thoothukudi conducted a three-day training





program on “Water Quality Management in Aquaculture Systems” from 06.12.2017 to 08.12.2017. The training program was inaugurated by Dr.G.Sugumar, Dean on 06.12.2017. During this program, lectures on water quality management in different aquaculture systems, culture of plankton and fish food organisms were dealt with field visits. The training program was co-ordinated by Dr.P.Padmavathy, Associate Professor and Head and Dr.V.Rani, Assistant Professor, Department of Aquatic Environment Management.

#### Soft Skill Training for students of FCRI, Thoothukudi

A two-day soft skill training was organized at the FCRI, Thoothukudi on 13 and 14 December 2017. Mrs.Radha,



CEO of SMART Series, Bangaluru conducted the program. Dr.G.Sugumar, Dean inaugurated the program and stressed the need for acquiring soft skills in shaping one's personality. On 13.12.2017, a program titled, LIFE 365 was launched for the undergraduate students. It is a year - long program communicated everyday through mobile application to all students who would go through the content and give their response to be moderated by the trainers of SMART series. On 14.12.2017, the postgraduate students were given a special training session on presentation skills in which they were given details of standard techniques to augment the quality of presentation.

#### One day workshop on 'Entrepreneurship development in fish processing' at CoFE, Nagapattinam

A one-day workshop on “Entrepreneurship Development in Fish Processing” was conducted at the College of Fisheries Engineering, Nagapattinam on 15.12.2017. Dr. S. Balasubramanian, Dean inaugurated the event and spoke about the skills required for an entrepreneur. Dr. K. Rathnakumar, Professor & Head, Department of Fish Process Engineering spoke about importance and self-employment opportunities



existing in fish processing in Nagapattinam region. Dr. N.Manimehalai, Associate Professor explained about the infrastructure requirement and project report for preparation of fish/prawn pickle. Details regarding infrastructure requirement for ready to eat fishery product preparation was briefed by Dr. R. Brimmapureeswaran, Assistant Professor. Mr. P. V. Sasi kishan, Manager, Indian Bank, Melavanjore Branch briefed about the bank loan options for starting up of fish processing related enterprises. A total of 40 students from various colleges located in Nagapattinam district attended the workshop. Dr. P.Karthickumar, Assistant Professor, organized the above workshop.

#### DEP- Shrimp farm technologies

Mr. T. Anand delivered a contact class lecture entitled “shrimp farm technologies” for the Distance Education Program Trainees on 16.12.2017. For field exposure, the trainees were taken to a shrimp farm at Melavanjore.

#### Training on Value added fishery products at FCRI, Ponneri

FCRI, Ponneri conducted a training programme on “Value added Fishery products” from 19.12.2017 to 20.12.2017. A total of 13 trainees from various parts of Tamil Nadu participated in the program. Dr.B.Ahilan, Dean i/c of the institute inaugurated the program. In the training, important aspects of value addition were taught to the



participants by the subject matter specialists of the institute with demonstrations. The training program was coordinated by the Department of Fisheries Extension.

#### **Vocational Training on 'Liquid fertilizer preparation from seaweeds' at FCRI, Thoothukudi**

Department of Fish Nutrition and Feed Technology, FCRI, Thoothukudi conducted a one day vocational training program on "Liquid fertilizer preparation from seaweeds" on 20.12.2017. A total of 18 trainees (including four women) attended the training. In this program, various aspects of liquid fertilizer preparation were taught and Dr.G.Sugumar, Dean distributed the certificates to the participants. Dr.S.Athithan, Professor and Head of the Department coordinated this program.



#### **Training program on 'Loach culture and breeding technology' at Kanyakumari District**

Parakkai KK Centre for Sustainable Aquaculture, Parakkai, Kanyakumari district organized a one day training program on "Loach culture and breeding technology" on 20.12.2017. A total of 15 participants attended the program. The Centre established a model unit for loach breeding in circular cement and FRP tanks and a small earthen pond for rearing of loaches. The trainees were taken on field visit for demonstration on loach breeding techniques.

#### **Training on 'Cage culture in inland water bodies' at Thanjavur**

A two-day training program on "Cage culture in inland water bodies" was conducted on 20.12.2017 & 21.12.2107 at Thanjavur Centre for Sustainable Aquaculture. A total of 17 farmers from Thanjavur, Trichy, Karur, Madurai and Cuddalore districts participated in the program. The details about selection of waterbody, selection of fish species, seed stocking, water quality management, disease management, harvesting and marketing were provided to

the trainees. Dr.V.Senthilkumar, Assistant Professor and Head i/c of the centre organized this program.

#### **'Deep sea fishing awareness campaign' at Mandapam**

Directorate of Fisheries Technologies, Training and Incubation (DFTTI), Ramanathapuram, as a part of its NADP Scheme, conducted an Off- campus training program on 'Responsible fishing,' and 'Awareness on deep sea fishing' at Chinna Eruvadi, Ramanathapuram district on 21.12.2017. Dr. D. Sukumar, Director gave a talk on need for adoption of responsible fishing and elaborated the avenues for alternative deep sea fishing and coastal farming practices. Mr. R.Velmurugan, Assistant Professor gave presentations on code of conduct for responsible fishing and deep sea fishing resources. Mr. Sivakumar, Assistant Director of Fisheries gave a talk on need for such training programs. About 30 fishermen attended the program.

#### **Workshop on 'Statistical analysis for engineers' at CoFE, Nagapattinam**

CoFE organized a one day workshop on 'Statistical analysis for engineers' on 22.12.2017 in commemorating with the birthday of Shri Srinivasa Ramanujan, the great mathematical genius who made exemplary contribution to Mathematics. Dr.S.Balasubramanian, Dean, CoFE, inaugurated the event. He delivered a lecture on the basic concepts of statistics and its applications. The workshop included hands-on training on statistical analysis using open source software like R-programming language. The event coordinators viz., Mr. M. Kamalakannan and Mr. R. Palani delivered lectures on different kinds of statistical tools, a common data analysis and interpretation of statistical models with real time problems, explained through hands-on session. Twenty participants including faculty and students from various colleges participated in this event.

#### **Field training organized at CoFE, Nagapattinam**

CoFE, Nagapattinam, in collaboration with Reliance Foundation, organized a Field training program at





Mayiladuthurai on 23.12.2017. In this event Dr. S. Balasubramanian, Dr. Mohammad Tanveer, Dr. Santhosh kumar gave lecture on freshwater fish farming, farm maintenance and water sample analysis using kits with demonstrations. Nearly 150 farmers were connected through video conferencing mode in five different places and all their queries were answered.

#### DIARY OF EVENTS

- Dr. S. Felix, Vice-Chancellor Participated in the Award Ceremony to Prof. M.S. Swaminathan attended by the Vice-President of India and the Governor of Tamil Nadu at Madras Veterinary College, Chennai on 10<sup>th</sup> December, 2017.



- G.O.released (G.O. (Ms) No.232, dated 08.12.2017) to increase two seats in M.F.Sc., degree program and one seat in Doctorate (Ph.D.,) Program for deputation of in-service candidates from the State Fisheries Department.
- The Vice-Chancellor, TNPU conducted NADP review meeting for the project, Farmed pearl spot (*Etroplus suratensis*) production as an alternative livelihood to promote brackishwater at the ARFF, Madhavaram on 22.12.2017.
- The Vice-Chancellor visited the DFTTIC-Mutukkadu on 23.12.2017 to review the technical works as well as the upcoming construction works carried out by this Directorate with the Engineering staff.
- Monthly SKYPE meeting for all the university officers was conducted by the Vice-Chancellor on 28th November to chart out the work plan for December 2017.
- Proposal on declaration of Loach – as state fish, a native fish of Tamil Nadu was submitted to the Government for consideration.
- Aadhar enabled Biometric attendance system was activated in all the major constituent units of TNPU to monitor the faculty attendance.

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