





Avinashilingam Institute for Home Science and Higher Education for Women, Deemed to be University, Estd. u/s 3 of UGC Act 1956, Category A by MHRD Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC,

Coimbatore – 641 043, Tamil Nadu India.

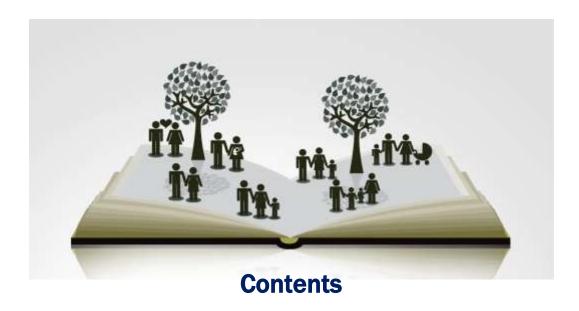
Consultancy Potential Manual

November 2022

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Research and Development Cell



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	Physical Sciences and Computational Sciences				
	Biosciences				
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	Education				
	Engineering				



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)

Re-accredited with A++ Grade CGPA 3.65/4 Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

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MESSAGE

Ph.D. M.D. D.Sc. FAMS, FNASc, FIMSA, FABMS, FFTM (Glasgow, UK)

Chancellor

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The International vision of the Higher Education System is holistic development of the university system inculcating the 21st Century potentials to all the students its purview. The Government of India has evolved the holistic, multidisciplinary and futuristic National Educational Policy-2020 with the goal of achieving the above international vision. One of the essential components of the NEP-2020 is transform the students from the level of "Employment seekers" to "Employment generators" and to see that the Higher Education ecosystem becomes conducive to nurture the talent infusion. The major requirement to create this capability is to enhance the research and consultancy potentials of the faculty members and the researchers of the HEIs, especially the 1000+ universities in our country.

The best way of achieving national/international visibility of innovation and R&D strengths of the universities is to showcase their R&D capabilities and Consultancy potentials to all the stakeholders and the industry sector personnel. A comprehensive document containing the details of these potentials of Avinashilingam Institute for Home Science and Higher Education for Women has been prepared by the Directorate of Research and Development of this Deemed University. In addition to the potentials documentation, DORD has also given the user charges, if any, and the user-friend mechanism for the end-users of these Consultancy potentials. I am sure it would also be available on the website of this university for easy accessibility. I wish that these facilities are fully utilized by both internal and external R&D seekers and translate their research outputs for the betterment of the society at large, satisfying one component of the Sustainable Development Goals!

My best wishes and immense appreciation for all those responsible for the preparation of this Consultancy Potentials Manual.

(S.P.Thyagarajan)

(3.F. Hiyagarajan

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Consultancy Potential Manual

Prelude

The Consultancy Potential Manual of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore has been prepared with the prime objective of providing specialist expertise and knowledge of the faculty to beneficiaries from Government/Non-Government agencies, industry personnel, start-ups and incubatees to further them in their projects. It is intended for the reference of researchers desiring consultancy services thereby promoting interinstitutional research and exchange programmes at national and international level through consultancy and MoU's. This manual provides a comprehensive list of consultancy services offered by the faculty researchers of the Institution.

Consultancy encompasses all advisory, technical and research project implementation activities provided by faculty members and research scholars to the clients. Consultancy services and projects include providing expert advice, solving problems, testing and experimenting laboratory based work, market researches and survey.

State-of-art advanced instrumentation facilities hosted in the Advanced Research Laboratory and Prof. C.N.R.Rao Laboratory of the Institute, such as the GC MS spectrometer, Infrared Spectrometer, Body Mass Composition analyzer, Scanning Electron Microscope, Texture analyzer and Flow Cytometer, have enabled research scholars from other Institutes far and wide to utilize these instruments for their research through outsourcing.

Individual faculty members of any department involved in consultancy are the consultants. The industry or private party or any other outside agency seeking consultancy is the client/beneficiary.

The consultancy venture of the Institution ensures the provision of services to the prospective clients by making better use of and maximizing existing resources and also supports organizational sustainability. Through these consultancy services, resource mobilizations vide an in-built revenue sharing formula between the client and the Institution as stipulated in the consultancy policy of the Institution is envisaged.

Consultancy Policy of the Institute

1. Preface

Considering the vision and mission of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, one of the major research policies includes consultancy assignment apart from active research and teaching. The Institute strives to promote and enhance the external profile and the societal impact of the Institute includes the expertise and research inclination of the faculty members. This creates mutually beneficial opportunities for collaborative research and consultancy services. The consultancy projects and services enrich and broaden the professional experience and knowledge of the teaching faculties. Consultancy services in an academic environment functions as a tool for contributing to the national economic growth.

2. Definition of Consultancy Services and Projects

This includes an assignment or job for providing expert advice; problem solving, targeted training, testing and laboratory based experimental work, market research and survey. The faculty member of the Institute or the department involved in consultancy are referred as consultants and the industry or private party or any other outside agency seeking consultancy is referred as the beneficiary.

3. General Principles of Consultancy

- 1. A consultancy work may be undertaken by the faculty members in their area of expertise.
- 2. The consultancy services should be undertaken only with prior permission of the Institute.
- 3. It should not interfere with the discharge of prime duties of the consultant- the faculty member or the department.
- 4. Consultancy services should not be in conflict with the interest of the Institute.
- 5. In the context of consultancy services, the consultant should not directly or indirectly get associated with any activities which may be unethical or inappropriate.
- 6. The two types of consultancy are Individual Consultancy and Institutional Consultancy. Individual Consultancy is offered by a faculty member in her individual capacity. Institutional Consultancy is offered by a team of faculty members from the same discipline or different discipline of the Institute.

7. In the case of foreign consultancies, the Institute will permit to take up the consultancy based on the nature of the consultancy work. The consultant team has to execute a bond with the Institute.

4. Institutional Policy on Revenue sharing

The consultancy fees for the consultant should be mentioned in the budget proposal submitted by the beneficiary and should be approved by the Registrar.

The distribution ratio of the consultancy fee is 60:40 for individual consultancy services or projects and 50:50 for Institutional consultancy services or projects. The Institute share and the consultant share should be collected as separate demand draft.

- 5. Nature of tasks considered for Consultancy
- a. Establishment of laboratory/pilot plant
- b. Project for setting up a pilot plant/getting a bank loan
- c. Efficacy testing of new products
- d. Offering consultancy work in their site/factory
- e. Private agencies requesting for training of their staff
- f. Annual consultancy on contract for food quality improvement/product development
- g. Field visit for diagnosis and problem solving
- **6. General Procedure**
- (i) Consultancy proposal should be received (from the beneficiary) by the consultant (individual faculty member or the department)
- (ii) The proposal should be submitted (Annexure) to the Head of the Institution (HoI) and the Head of the Department (HoD).
- (iii) Hol/HoD will examine the proposal and submit it along with their recommendations to the Registrar.
- (iv) The higher authorities will consider the following aspects before recommending the proposal:

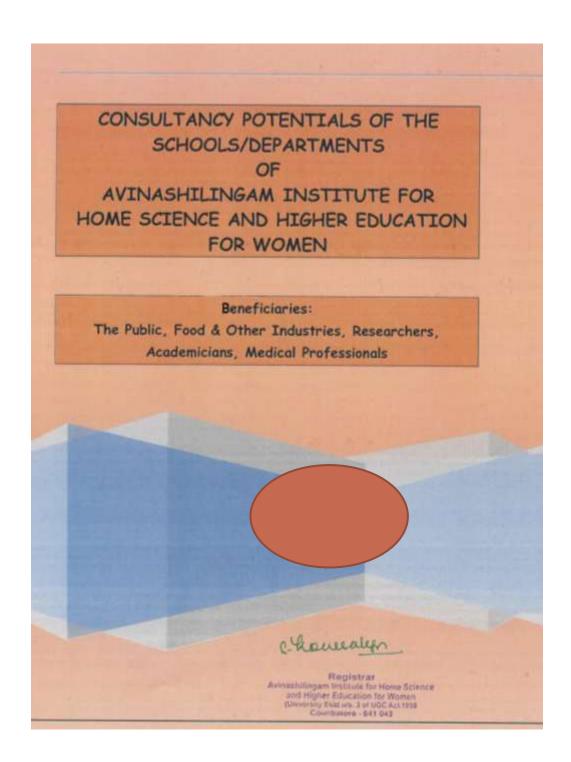
$\hfill\Box$ Extent to which the consultancy work will be undertaken by the faculty or the department in addition to their normal duties and work load.
☐ During the days of Institutional commitments, the consultants should not neglect their duties and concentrate on consultancy work alone.

$\hfill \square$ The consultancy fees should be carefully proposed in the budget submitted by the beneficiary.				
$\hfill\Box$ The entire consultancy service or project should be focused on the interest of the Institute in the long run.				
\Box All issues related to the progress of the consultancy work, handling of the budget amount and the stipulated time frame should be legally discussed with the competent authorities and should be mentioned in the agreement.				
(v) The Registrar will issue the approval letter after getting the consent of the competent authoritie				
(vi) The consulting commitment should not exceed 30 days in an academic year for the faculty member or the department.				
(vii) A Memorandum of Understanding should be signed between the beneficiary and the consultant before undertaking the consultancy assignment.				
Disclaimer: Registrar's decision will be final and binding in all matters regarding research.				

7. Forms and Formats

Approval for Consultancy Projects / Services submitted to Avinshilingam Institute for Home Science and Higher Education for Women, Coimbatore- 641043

Head of the Institution	Head of the Department
I recommend the work outlined above being undertandered availability has been made and the assignment would be signed	
Name of the Consultant Designation Signed Dated	
c) Other resources :6. Permission may please be accorded to undertake	outside Consultancy activities as outlined above
b) Equipment and Consumables :	
iv) Any other :d) Net amount(a-b-c) :5. Value of Avinashilingam Institute resources invoa) Time of other staff :	lved , if any
iii) Contingency:	
ii) Travel:	
c) Total Estimated Expenditure : i) Consumables :	
b) Service Tax, if any:	
4. Consideration moneya) Total receivable :	
3. Probable duration of Consultancy:	
2. Nature of work to be undertaken:	
1. Name of the Origination for whom work is to be	undertaken:



PHYSICIAN ASSISTANT

- 1. Medical camp for industries, schools and community areas
- 2. Screening campaign for various cancer
- 3. Education for women with PCOS and other menstrual issues.
- 4. Exercises for Antenatal and postnatal mothers
- 5. Prevention and management of various illness
- 6.Identification of Blood Group



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and Higher Education for Women
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BIOCHEMISTRY, BIOTECHNOLOGY AND BIOINFORMATICS





We offer consultancy services in studies involving animal cell culture.

We do cytotoxicity testing, checking their anticancer and antidiabetic and anti-arthritic potentials.

We check the method of cell death - apoptosis or necrosis.

We perform cell cycle analysis, measurement of mitochondrial potential and extent of ROS generation.

We do anti microbial studies to check the microbial load of various samples in our microbiology laboratory.

Using our Bioinformatics laboratory drug designing software we do in silico docking, molecular simulation, molecular dynamics studies.

We are testing the phytochemical constituents of the samples using HPLC and HPTLC. 2D gel electrophoresis and genomic and proteomic studies are as done.

With the rich experience of the experienced and qualified faculty members we not only do these experimental studies but also analyse and interpret the results for the assays that are performed by us. We are able to do joint publications through our consultancy services.

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DEPARTMENT OF FOOD SERVICE MANAGEMENT AND DIETETICS

Consultancy Projects already done:

- 1. Supplementation of Health Drink
- -to 7-12 year old children to study its effect on cognitive development, memory and growth
- -to 13-15 year old rural girls to establish efficacy on iron status
- 2.Study of Nutritional Status, Stress Levels and their effect on Employee Performance in a Manufacturing Industry(Elgi Equipments)
- 3.Effect of Egg Protein Supplementation on Anthropometric and Biochemical Parameters of Selected Adult Subjects
- 4. Formulation and Development of Egg based Snack recipes for a private firm in Namakkal
- 5.Development of Bittergourd based Recipes and Estimation of their Glycemic Index





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DEPARTMENT OF PHYSICAL EDUCATION

An excellent Consultancy Service by the Students in Sports Training to School Students!

Avinashilingam Institute, Department of Physical Education has extended their technical support by rendering the students and Staff to act as officials and technical experts to Graham Staines Matriculation School, Coimbatore in organising the West Zone Inter School Tournaments.

45 of our students and 5 staff rendered support in Setting up Infrastructurefacilities for the school, laying the new 200 mts track, courts& fieldfacilities in the school. Rendered technical supportin organizing the the competition and also trained the Graham SchoolTeam's for Inter Schoolcompetitions. As a consultancy charges, school provided Rs.10,000 to our institute.

The games and sports conducted for School Boys and Girls:

Chess, Carrom, Tennicoit, KhoKho, Football, Volleyball, Kabaddi, Throwball, Handball, Ball Badminton, Hockey and Athletics

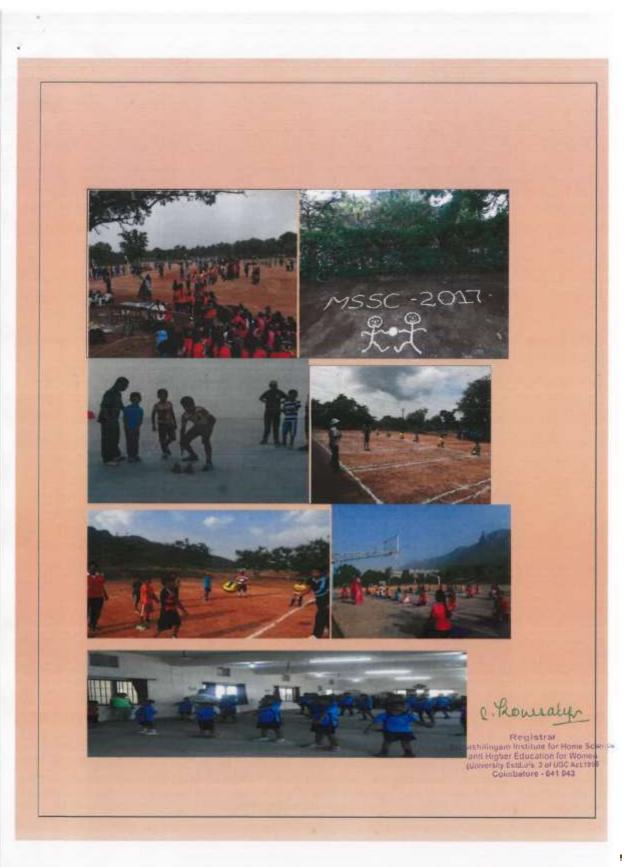
Our students acting as Technical Officials and organising matches





Residential Sports Summer Camps are organised for School Children every year

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DEPARTMENT OF FRENCH

Consultancy with Satchidananda Jothi Niketan International School Kallar.

- To develop French language and to equip school children with skill in French language
- This Consultancy is proposed for the benefit of students to help them acquire communication skills in French and to get an exposure to Frenchas a foreign language which would serve them to cross boundaries and get international exposure.



Chancellor Anna Avl. and Dr. Kavidasan of ROOTS, Pvt. Ltd, Coimbatore signing the Institutional Consultancy

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DEPARTMENT OF HUMAN DEVELOPMENT

The Department of Human Development has been engaged in consultancy services to monitor and educate parents and children for over all development of their child from its inception through Sri. Avinashilingam Creche cum laboratory Nursery School. Major activities and services provided were

- Parent counseling
- > Identifying developmental and behavioural problems of children
- Various national day and festival celebrations
- Children's day and Thanksgiving day



he staff members of Human Development Department are engaged every year in giving special training for Anganwadi workers about developmental domains of children, low cost teaching aid preparation, value based education, stimulation and nutrition aspects.





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DEPARTMENT OF CIVIL ENGINEERING

The Department of Civil Engineering caters for the consultancy services on quality control testing facilities on construction materials and water & wastewater. The department has expert faculty in the field of Structural and Environmental Engineering. Faculty members have involved in the construction field as planning, designing and quality engineers. Expert opinion in quality of construction materials, water quality, planning and managing of construction works has done for the past decade for the parent Institution and Governmental organisations like Public Works Department (PWD). We also facilitate in production of paver blocks.

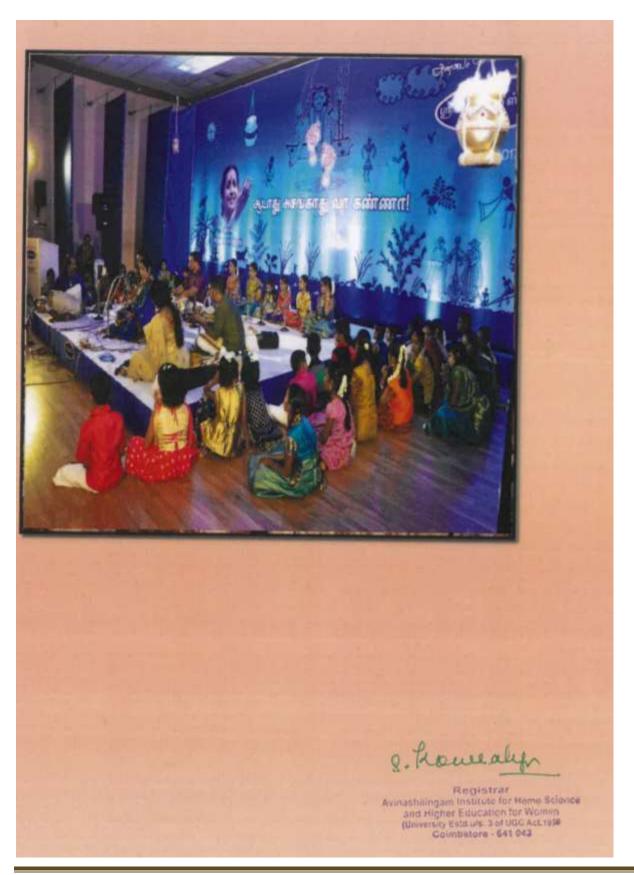


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DEPARTMENT OF MUSIC

Chinnanchiru Kuyilgal-A music Class for the children of the public organized as a Consultancy Service

Chinnanchiru Kuyilgal is a Memorandum of Understanding [MoU] between Department of Music, Avinashinligam Institute for Home Science and Higher Education for Women and Sri Krishna Sweets, Coimbatore.

By the screening of selection process, the students from I Standard – IX Standard were selected by the aptitude test. Among the 300 students 55 students were selected by the Staff members and PhD scholars of Music Department.

The aim is to seed the good thoughts and deeds in the mind of the youngsters.

Hence Bhajans, songs on different deities, Pranayaama and Thoppukaranam were taught for the selected students. Singing, doing Pranayaama and Thoppukaranam are all well known processes, which are believed to improve the concentration of the mind and brain and also to activate the parts of the body.

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DEPARTMENT OF COMMERCE

E filing of Income Tax Returns

Electronic filing of income tax returns is carried out by the staff members of Commerce Department with the help of trained students. E-filing gives taxpayers the benefit of getting the status updated on real time. The income tax returns are received and accepted online without hazzles. As it becomes mandatory to file the returns online, it saves the time of both tax return filers as well as the income tax department. The commerce department renders consultancy service to the teaching and nonteaching staff of the institution. They avail this service every year on payment of a nominal fee.

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DEPARTMENT OF ZOOLOGY

The Department offers the following as consultancy services

1. Culture and Maintenance of Ornamental fishes.



2. Training in Vermicompost production.



3. Microbial Analysis of Soil and Water and Identification of microbes.



4. Demo on Virtual Animal Dissection for school children's.



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DEPARTMENT OF TEXTILES AND CLOTHING

The production laboratory is facilitated with miniature machines for fabrication where in even with minimum quantities of raw materials the yarns can be spun and woven or nonwoven fabrics can be prepared. The demand for newer nonconventional fibres and its applications has encouraged industries, institutions, academicians and research scholars towards development of nonwoven fabrics for various applications like agro, geo, build and indu tech. The faculty members in the department have extended their expertise knowledge to develop nonwoven fabrics.

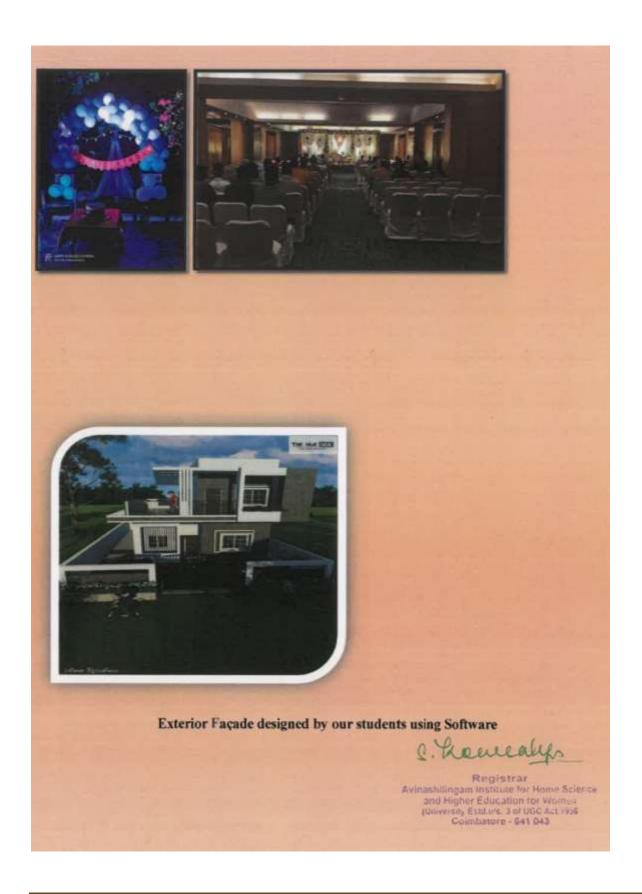




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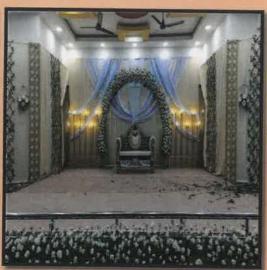
DEPARTMENT OF RESOURCE MANAGEMENT

CONSULTANCY SERVICES CARRIED OUT BY THE STUDENTS

Students work as independent consultants/work with architects and interior designersand design residential and commercial interiors. They design art objects with artistic flair, draft schematic designs of kitchen to realistic modular kitchen, with artistic skill apply mehandi, organise workshops on creative arts, soap making, floral arrangements, motivate households to take up organic farming and terrace garden, aesthetically decorate for special events and occasions for the clients.

Students as Event Planners and Decorators





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- Career/ Interest/Vocational Assessments
- > Counselling for appropriate choice.
- Guidance on programs of interest.
- Amalgamation of Individual interests with practical and viable career options.
- Guidance for admission to foreign universities.

C.A.R.E - Centre for Ambitious and Resourceful Endeavors offers its services free of cost to staff and students of Avinashilingam Institute for Home Science and Higher Education for Women. Also all the above said services are offered on a paid basis to outsiders from January 2019 onwards.

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- Occupational Stress Inventory
- Raven's Standard Progressive Matrices
- Self-Esteem Questionnaire
- Sentence Completion Test
- State Trait Anxiety Scale

C.A.R.E offers services for:

- · Difficulty concentrating in studies/work
- · Frequent illness without reason
- · Guilt/ Shame
- Inability to make decisions
- Inability to adjust to any new situation
- Intense felling of any emotions
- Negative feedback in class / workpalce
- · Not able to enjoy one's favourite activities
- Subtance abuse
- Traumatic experience
- Relationship Difficulties

MAJOR THERAPIES WE OFFER

- Breathing Exercises.
- Cognitive Behavior Therapy.
- Deep Muscle Relaxation
- Imagery
- Positive Therapy.
- Rational Emotive Therapy.
- Relaxation Training.
- Mindfulness Meditation
- Visualization
- Zen Meditation

EMOTIONAL MANAGEMENT: Emotions are an integral part of our being. Emotions should not be controlled but managed efficiently.

Emotional Management Training has the objective of:

- Self Awareness
- Awareness of Emotions experienced
- Appropriate Communication of Emotions
- Intensive training on positive actions to manage emotions.
- Apply Reason to Emotion.
- Psychodrama.
- Intensive Anger Management Counselling

CAREER MAPPING: A Question that invades and troubles the minds of most youngsters today is the decision related to their careers. We at C.A.R.E help students come to a decision regarding their career choice.

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DEPARTMENT OF PSYCHOLOGY

C.A.R.E

(Centre for Ambitious and Resourceful Endeavours)



C.A.R.E - Centre for Ambitious and Resourceful Endeavors is an initiative of staff and students of the Department of Psychology which extends guidance and counseling to faculty and students of the institution. The Centre motivates the student community to feel free to undergo Psychometric assessment that would open their Pandora box of aptitude, abilities and personality characteristics that, in turn would facilitate their decision in choice of career, Higher education and for a Holistic personal development.

The Centre also provides assistance to staff and students to deal with their emotional and personal concerns.

VISION

Centre for Ambitious and Resourceful Endeavours has the vision to understand individual behaviour, solve problems arising due to numerous human interactions, travel through the unexplored contours of the human mind, and pave the pathway for a successful and happy life.

MISSION

- HOLISTIC DEVELOPMENT
- EMOTIONAL INTELLIGENCE
- PERSONALITY DEVELOPMENT
- STUDENT WELLBEING
- CAREER GUIDANCE

WHAT WE OFFER

- · Psychometric Assessment
- Counselling
- Personality Mapping
- Career Mapping
- Workshops

PYCHOMETRIC ASSESSMENT

- Aggression Scale
- Assertiveness Inventory
- Brain Dominance Test
- Comprehensive Interest Schedule
- Emotional intelligence scale
- Myer's Brigg Type Indicator
- Neo Five Personality Scale

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and Higher Education for Women
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SCHOOL OF ENGINEERING

DEPARTMENT OF FOOD PROCESSING AND PRESERVATION TECHNOLOGY

The Department of Food Processing and Preservation Technology focusses on the consultancy services in the following areas

- Process development
- New product Development (NPD) –Extruded Products, Pickles and Spreads.

Solutions were provided to industrial products pertaining to preservation of food products like indigenous and traditional pickles and spreads to Booster International Foods, Nagercoil.

Development of Innovative extruded products to Industries like United India Foods, Dindigul and VedikaEntreprises, Kallakurichi. Supportive services offered to Industries benefitted the department by means of sponsors for various activities like Seminar, Conferences, Workshops etc..

The Department also started a Bakery Production Unit which is taken up by the Staff and Students to produce and distribute hygienically prepared quality baked products in campus with the support of the seed fund of Rs.25,000/- provided by the Institution. This effort also enhanced the entrepreneurial skills and hands on experience among students.



New Product Development: Extruded Pasta



Baked Products from Bakery Production Unit-Campus II

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DEPARTMENT OF PHYSICS

Potential Areas of Consultancy: Mobile Service Training

Modern mobile phones are inevitable in today's life. Maintenance and servicing is significantly and equivalently important to be connected with our work, society and other aspects of life. The department of Physics has conducted a series of two day's Workshop on Mobile Phone Servicing with the theme based on training the students towards entrepreneurial endeavors and skill development. The response and feedback are found to be very effective. Based on this background department further plans to start, initially Consultancy services for Mobile Phones for our stake holders initially and then extend the same to society on a large scale. Some glimpses of the workshop are given:



Development of Nano Scale Coatings on Cotton Fabric for Antimicrobial Activity and for Enhanced Electrical Conductivity

Value addition of fabric is a captive area of research. The research so far made has yielded a nano copper impregnated cotton fabric which would be suitable for variety of purposes namely (i) supercapacitor separators (ii) antimicrobial fabric which can be washed normally upto 60°C with detergent. Hence, the consultancy is given on fabric upgradation for antimicrobial activity







and enhanced el ectrical conductivity

Development of all solid state batteries for low to high capacity demands

The expertise gained over the past three decades on battery fabrication and material research concerned with batteries is an asset and prototypes of all solid state batteries are made and tested to yield good outputs. This knowledge would be utilized in solving interfacial issues of solid state batteries, improving the capacity and longevity of the all solid or semi solid batteries.

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DEPARTMENT OF FOOD SCIENCE AND NUTRITION

The Department of Food Science and Nutrition offers a wide range of consultancy services to Government, Non Government Organizations, Schools, Colleges and Food Industries on planning menu and evaluation of Nutrition Intervention programmes, Government of Tamil Nadu, Nutritional Assessment among Community, Screening for Nutritional Deficiencies, Analysis of Food Samples, Food Product Development, Consultancy for Lifestyle Disorders, Inspection and Certification for Training Institutes and Academies.









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Centralized facilities in the Institution and information link

- **♣**Advanced Research Laboratory
- **♣** Bharat Ratna Prof.CNR Rao Research Centre
- Centre for Machine learning and Intelligence
- Centre for Artificial Intelligence and Robotics
- Centre for Manufacturing and Emerging Technologies
- Innovation and Incubation Centre
- **Entrepreneur Development Cell**
- **♣** Institutions Innovation Council
- **Avinashilingam Innovation and Incubation Centre**

Advanced Research Laboratory

https://avinuty.ac.in/maincampus/uploads/facilities/library/ARL.pdf

Advanced Research Laboratory

Advanced Research centre was established in the year 2009 to facilitate research of high standards with funds received from DST-CURIE scheme. This Centralised Instrumentation facility called the Advanced Research Laboratory has been set up to house most of the higher end equipments purchased by all the departments in the University. This laboratory is accessible to all the research scholars and staff members of the University and almost all the equipments are used for outsourcing samples that lead to income generation of the facility.

Some of the Sophisticated Instruments available are

- Nano Spray Dryer B-90
- Freeze Dryer/Lyophilizer
- Iso Electric Focussing Unit-[2D Gel Electrophoretic System] with gel dryer and scanner
- ♣ Bioreactor
- ELISA Microplate Reader
- # HPLC
- Dose IT, Sonics Vibra cell-Atomizer
- Akta prime plus chromatography system with fraction collector
- Flow Cytometer
- Gel Documentation system
- Bio Spec Nano

ELISA Microplate Reader



Designed to detect biological, chemical or physical events of samples in microtiter plates

AKTA Prime plus chromatography fraction collector



Fraction collectors are in common use with most liquid chromatographs. They are used to collect samples for further purification, subsequent examination by spectroscopic techniques or for biological or organoleptic testing.



Dose IT, Sonics Vibra cell-Atomizer



An atomizer nozzle is an aspirator nozzle for producing a fine spray of a liquid based on the Venturi effect used by textiles and clothing students

High Performance Liquid Chromatography



It is a chromatographic technique used to separate a mixture of compounds in analytical chemistry and biochemistry with the purpose of identifying, quantifying or purifying the individual components of the mixture.

Iso Electric Focussing Unit-[2D Gel Electrophoretic System] with gel dryer and scanner



Two-dimensional gel electrophoresis (2-D electrophoresis) powerful and widely used method for the analysis of complex protein mixtures extracted from tissues, or other biological samples. This technique separate proteins in two steps, according to two independent properties: the first-dimension is isoelectric focusing (IEF), which separates proteins according to their isoelectric points (pl); the second-dimension is SDSpolyacrylamide gel electrophoresis (SDS-PAGE), which separates proteins according to their molecular weights (MW).

BIOREACTOR



Suitable for most fermentation and cell culture applications

NANO SPRAY DRYER B-80



gentle method producing powders with a defined particle size out of solutions. dispersions, and emulsions which widely used for pharmaceuticals, food, biotechnology, and other industrial materials synthesis. Produce submicron or even nano particles of 300 nm to 5 sizes with very narrow size distribution

ACE Alera Clinical Chemistry



To determine levels of albumin, alkaline phosphatase, aspartate transaminase (AST), blood urea nitrogen, bilirubin, calcium, cholesterol, creatinine, glucose, inorganic phosphorus, proteins, and uric acid in blood serum or other body samples.

FLOW CYTOMETER



Flow Cytometry used for the analysis of DNA or RNA content, and for a number of functional studies on cells namely cell cycle analysis, apoptosis etc.,

FREEZE DRYER/LYOPHILIZER



It is used for dehydration process typically used to preserve a perishable material or make the material more convenient for transport.

Facilities



BioSpec Nano



The Shimadzu BioSpec-nano is a low-maintenance micro-volume spectrophotometer designed for the modern life science laboratory. It offers superior detection limits, up to 10 times better compared to the competition, making it the perfect instrument for quantitation of DNA, RNA, protein analysis, and photometric measurements. Quantitation can be rapidly and simply carried out with very small samples ranging from 1µL. And, with dedicated functions, such as automated sample mounting and wiping, the BioSpec-nano offers a rapid 3-second analysis time and a 10-second cycle time between samples.

Bharat Ratna Prof.CNR Rao Research Centre

https://sites.google.com/avinuty.ac.in/avinashilingamp rofcnrrc

About the Research Centre

Year of inception: 2017

ISO CERTIFIED RESEARCH CENTRE

The Bharat Ratna Prof. C.N.R. Rao Research Centre houses cutting-edge technologies with high end equipment under a roof that facilitate the trans-disciplinary research. This Research Centre with the state -of- the art equipment is available for use by the research scholars in and outside the Institution. It has been established with the funding of DST under "Consolidation of University Research for Innovation and Excellence in Women Universities" (CURIE).

The Research Centre houses a wide array of highly sophisticated equipment like Field Emission Scanning Electron Microscope (FESEM), X-ray Diffractometer (XRD), Nano Spray Dryer, Atomic Absorption Spectrophotometer (AAS), 3D Optical Profilometer, Fourier Transform Infrared Spectrophotometer (FT-IR), Body



Composition Analyzer, Thermo Gravimetric Analyser (TGA), Texture Analyzer, Plasma Chamber, Spectrophotometer with Color Lab, Turbidity meter, Ultrasonic Homogenizer, UV Biospec, Electrochemical Workstation and Ozonizer. This centre has been set up with a sum of several crores of rupees. The facilities available in this high-technology research centre are also extended to the research scholars and staff members of other educational and research institutions, at a nominal cost, as an outsourcing activity.



Contact details: adusamples@avinuty.ac.in



Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore-43 BHARAT RATNA Prof. CNR RAO RESEARCH CENTRE REQUISITION FOR CONSULTANCY/ SAMPLE ANALYSIS

Name	*
Designation/Class	
Institution and Address	
Department	
Email id	: Mobile Number:
User category	: Industry/Lab/UG/PG/M.Phil./Project work/Ph.D/Faculty
SAMPLE INFORMATION	
Number of samples	: Sample Code
Nature of Sample	: Solid/Liquid/Metal plate/Glass plate/Polymer film/Textile/others
Receipt no	1
Date:	

List of equipment for sample analysis

S.NO	PARTICULARS	No.of	SAMPLE INFORMATION
Savo	TARRELLARS	samples	SAMPLE INFORMATION
	FESEM& elemental analysis (with mapping of elements)		As per queue. Payment to be made for FESEM only after email confirmation Expected elements required
2	3D Optical Profiler		DO I SECURE CONTRACTOR OF THE
3	Thermo Gravimetric Analyser(TGA) (Powder sample only)		Temperature range & rate:
4	FT-IR		
5	XRD (Powder sample only) If liquid coat on glass substrate		
6	Texture Analyzer		
7	Spectrophotometer with Colorlab		
8	Nano Spray dryer (200ml)		
9	Plasma Chamber		
10	Manager Anna and an		
11	Body Composition Analyzer		
12	Ultrasonic homogenizer		
13	Turbidity meter (min 25ml)		
14	Ozone Purifier		
15	Phytochemical Screening(50ml) or plant extract min 2g		Solubility:
16	Anti-Oxidant Assay (10ml)		Solubility:
17	Brine Shrimp Assay		Solubility:
18	Ball Mill (max 1.2 Kg)		Time:
19	Biospec Nano Spectrophotometer (Uv absorbance/Simple Nucleic acid quantitation/Labeled Nucleic acid quantitation /Protein quantitation OD- 280) Sample Qty-100µl		Solubility:
20	Electrochemical Workstation (Linear Polarisation, Impedance, Cyclic voltammetry etc.)		
21	Design of Experiments (IF data is above 1,000 charges vary)		

^{***}Kindly acknowledge the facility utilized in publications and intimate to us

Signature of Student

Signature of Guide/HOD

Online Payment details: The Registrar, SB A/C:6059667020(R&C), INDIAN BANK, ADUC BRANCH, IFSC: IDIB000A005

Contact details:

adusamples@avinuty.ac.in

ANALYSIS OUTSOURCING CHARGES*

S.NO	PARTICULARS	CHARC	ES PER	SAMPLE
		Inside Institu tion	Other Institu tion	Industri s/ R&D'S
1.	FESEM 4 images	700	700	3000
2.	3D Optical Profiler	100	200	4000
3.	Thermo Gravimetric Analyser*	100	500	2000
4.	FT-IR	50	100	250
5.	XRD (Slowscan-Rs.800/Sample)	400	400	1000
6.	Texture Analyzer	100	100	1000
7.	Spectrophotometer with Colorlab	50	50	200
8.	NanoSpray dryer*	300	750	3000
9.	Plasma Chamber	100	100	1000
10.	Atomic Absorption Spectrometer/sample			
11.	Body Composition Analyzer	100	100	500
12.	Ultrasonic homogenizer*	50	50	100
13.	Turbidity meter	50	50	100
14.	Ozone Purifier	50	50	100
15.	Phytochemical Screening (17 metabolites)	200	200	500
16.	Anti-Oxidant Assay (AA Standard)	300	300	500
17.	Toxicity (Brine Shrimp Assay*/Allium cepa)	500	1000	2000
18.	Ball Mill* for nanosize prep	50	50	200
19.	Biospec Nano Spectrophotometer - UV absorbance (Sample Qty- 100µl)	50	100	200
20.	Electrochemical Workstation* CV, GCD, and corrosion inhibition studies	500	500	1000
21.	Design of Experiments ³ (IF data is above 1,000 charges vary)	200	200	400
22	Ellipsometer	100	100	400
23	Contact angle meter	100	200	500
24	Dip coater	50	100	200
25	USB travelling microscope	50	100	200

*Depending on operation time of equipment

Note:

Atomic Absorption Spectrometer equipment is under maintenance. We will intimate once it is ready

Online Payment details: The Registrar, SB A/C:6059667020 (R&C), INDIAN BANK, ADUC BRANCH, IFSC: IDIB000A005

↓ Centre for Machine learning and Intelligence https://sites.google.com/avinuty.ac.in/cmli Al Services

Al as a Service

Centre for Machine Learning and Intelligence is providing 'AI as a Service' to all the Researchers of our Institution. The kind of service to be provided will be

- Artificial Intelligence and Machine Learning Frameworks
 - Google Cloud Platform
 - Google AutoML
 - Google Vision API
- Cognitive Computing Interfaces (APIs)
 - Google Cloud Platform APIs
 - Natural Language Processing
 - Development and offering of AI & ML interfaces

Those who wanted to make use of this facility, please fill in this Google form

https://forms.gle/UmHCifz9q5HrtfDH7

Al Cloud Services

Centre for Machine Learning and Intelligence is providing 'AI Cloud Services' to all the Researchers of our Institution. The kind of service to be provided will be

- Infrastructure as a Service
- Offering CPU
 - Memory
 - Software resources through virtualization
 - Storage as a Service
 - **Unlimited Data storage**
 - Storage for Learning materials
 - Storage for Tutorials and training materials
 - Software as a Service
- Software virtualization

- Accessing through VMware / Oracle VMBox
- Data as a Service
- **Data pooling**
 - Construction of data repository
 - Donation of datasets

Those who wanted to make use of this facility, please fill in this Google form

https://forms.gle/P2cMJ3pqBm4E1CfCA

Service Charges:

- 1. AI Cloud charges inclusive of platform, processor, memory and minimum services
- 2. AI interfaces / APIs within the Institution
- 3. Customization of AI interfaces /APIs within the Institution
- 4. AI interfaces / APIs outside the Institution
- 5. Customization of AI interfaces /APIs outside the Institution
- Rs. 500 per month
- Rs. 500 per interface / API
- Rs. 500 per interface / API
- Rs. 1000 per interface / API
- Rs. 1000 per interface / API

Centre for Artificial Intelligence and Robotics



DST-Funded

Centre for Artificial Intelligence and Robotics

The department of Biomedical Instrumentation Engineering has established a "Centre for Artificial Intelligence and Robotics" with funds sanctioned in 2019-2020, by DST CURIE-AI facility, for setting up AI facility at the Avinashilingam Institute. It is a center formed to enable an interdisciplinary interaction between under graduate and post graduate students, faculties, researchers and the industry to enhance research opportunities, real world problem solving, training and education for the academic clients and also for knowledge sharing. This center is also involved in research, focusing on areas such as Artificial Intelligence, Machine Learning, Deep Learning, Robotics-Control and Command, Automation and their application in the healthcare, agriculture, education, transportation, smart cities and infrastructure domains. To achieve this, a club named Avinashilingam Artificial Intelligence club (A2I) was formed with the following objectives.

Objectives

- To impart skills relevant to AI and Robotics
- · To conduct intensive hands-on-training programmes associated with industries
- To nurture the creativity of students in Artificial Intelligence through AI club and to help kindle
 fascinating and new ideas to develop innovative AI/Robotics related projects and prototypes leading
 to innovations and patents.

Activities of the Research Centre

- Three days Hands-on-training on "Embedded Computing for IoT system" conducted from 19.10.2019 to 21.10.2019
- Artificial Intelligence and Machine Learning using MATLAB conducted from 17.12.2019 to 19.12.2019
- ♣ Two day Workshop on "Robotics using LabVIEW" conducted on 28.1.2020 & 29.1.2020
- The Artificial Intelligence club actively functions throughout the year. An awareness programme is organized to enthuse the new comers to join the AI club. Inaugural programme of AI Club is aimed to bring out the creativity of the new students by the existing members of the club through AI exhibits of mini projects and models. Presentations about humanoids and videos of Siri, Asimo and Sophia are screened to kindle the interest of students. A call for student's project proposal under our Avinashilingam Artificial Intelligence (A2I) Club follows. Teams with a mentor along with few students were sanctioned funds for AI Projects through a stringent evaluation process which includes a project presentation. The time allotted for completion of the shortlisted project proposals is three months, after which a report of the project is submitted by each team. The funds are released following the submission of project report.

Created AI facility

Research facilities of Centre for Artificial Intelligence and Robotics include the NI Robotic Hardware bundle consisting of the Rover Vehicle Assembly system, Balancing arm Assembly system and Self balancing Robot Assembly system and the Robotics-GPU based NVIDIA Workstation has become a part of the Centre to facilitate teaching, learning and Research. Students and faculty also benefit through hands-on-training programmes.

In-house AI Research Projects funded by the Centre

- Development of screen printed Graphene based ECG sensor for Wearable e-textile application
- Neural Network based Oral disease detection using Wi-Fi module
- Bone Arthritis.
- Optimized light weight light emitting concrete blocks
- Non-invasive measurement of Glaucoma disease using Bio-magnetic signal from eye.
- Lung Function monitoring device for Asthma and Jaundice
- Air Quality prediction using AI
- Congestion control in wireless sensor network using AI techniques

Hands-on-training organized for the students

S. No.	Date	Workshops/Training activities	Beneficiary Department
1.	09.10.2019 to 11.10.2019	Three days hands-on training on Embedded Computing for IoT Systems.	BMIE
2.	07.11.2019	One day Programme on Intelligent Sensing Technology for Non-Destructive Evaluation of Structures.	Civil
3.	18.12.2019	Two day workshop on 'Applications of IoT based food quality monitoring approach using sensor'	FPPT
4.	17.12.2019 to 19.12.2019	Artificial Intelligence and Machine Learning using MATLAB	BMIE
5.	19.12.2019 & 20.12.2019	Two day workshop on AI for cloud based IoT.	ECE
6.	23.01.2020 & 24.01.2020	Machine learning using python	CSE
7.	28.01.2020 & 29.01.2020	Robotics using LabVIEW	BMIE





Training by Mr. Mohammed Asif, Nanochip Solutions, Pvt. Ltd., Bangalore
On "Embedded Computing for IoT Systems"





Hands-on session by Mr.D.Rajkumar, Engineer, DesignTech Systems Ltd, Chennai
On "Artificial Intelligence and Machine Learning using MATLAB"





Hands-on session by Mr.T.R. Balaji, Engineer, Optithought, Chennai On "NI Robotics"





Workshop on "Intelligent Sensing Technology for Non-Destructive Evaluation of Structures" by Technical expert, Leading Edge Lab Equipment, Coimbatore



Workshop on "Machine Learning Using Python" by Mr. Vishnu Python Developer, Gateway Software Solutions, Colmbatore

Activities of A2I Club

- Awareness programmes for the students
- Awareness programmes for the common people/sector-wise
- Awareness programmes at the adopted villages by the students
- ♣ AI Newsletter by the students
- Inviting project proposals from the students of all Departments and the best proposals will be funded
- ♣ AI competitions Student's participation in the competitions related to AI
- AI Exhibitions Exhibitions will be arranged for the projects developed/concepts explored by the students
- Technical projects
 - · Working models
 - Surveys



Awareness on A2I club among students of campus II

Centre for Manufacturing and Emerging Technologies

https://sites.google.com/avinuty.ac.in/cmet/home

Research Activities

- Printed Electronics
- Treatment of dyeing industry effluent
- Green synthesis of metal oxides
- Quality detection of beverages
- Site suitability analysis for decentralized waste processing unit for Coimbatore city using GIS
- Consort chat bot for Alizheimer patients
- Air quality prediction using AI technologies
- Design and testing of Antennas

Facilities Available

Design and testing facility

- 1. Wireless System Design and Testing
- 2. Water and waste water quality testing and modelling
- 3.Bio CAD
- 4.COMPU Tech
- 5 Material synthesis and Characterization

Fabrication and synthesis facility

- 1. Food Product Development Facility
- 2.Screen Printing Facility

Innovation and Incubation Centre https://avinuty.ac.in/maincampus/AIIC/index.html

AVINASHILINGAM INNOVATION AND INCUBATION CENTRE - FACILITIES



Les Entrepreneur Development Cell

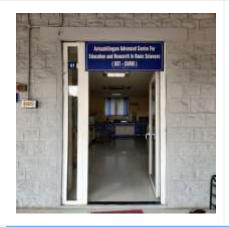
https://sites.google.com/avinuty.ac.in/edc/home

Institutions Innovation Council

https://sites.google.com/avinuty.ac.in/iic/home

INSTITUTIONAL FACILITIES TO SUPPORT RESEARCH & CONSULTANCY

• Advanced Research Lab - Geotagged Photos







Bharat Ratna Prof. C.N.R. Rao Research Center - Geotagged Photos



















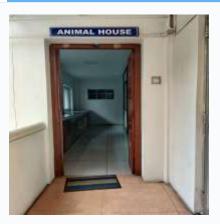


Textile Production Laboratory - Geotagged Photos





Animal House/Green House - Geotagged Photos













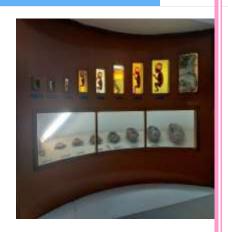




Museum - Geotagged Photos







Video Production Studio - Geotagged Photos

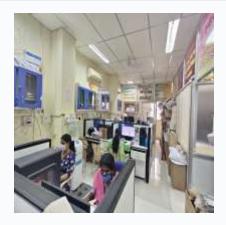






Business Lab - Geotagged Photos





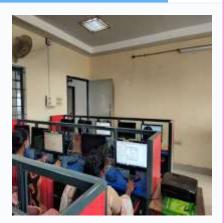




Research/Statistical Databases - Geotagged Photos







Schools of the Institution

School of Home Science

School of Physical Sciences &
Computational Sciences

School of Biosciences

School of Arts & Social Sciences

School of Commerce & Management

School of Allied Health Science

School of Education

School of Engineering



SCHOOL OF PHYSICAL SCIENCES & COMPUTATIONAL SCIENCES

	Department of Mathematics
	Department of Physics
الله الله	Department of Chemistry
	Department of Computer Science
	Department of Information Technology

SCHOOL OF BIOSCIENCES

	Department of Botany
	Department of Zoology
FOREN	Department of Biochemistry, Biotechnology & Bioinformatics
E ac	Department of Physician Assistant

SCHOOL OF ARTS & SOCIAL SCIENCES





SCHOOL OF COMMERCE & MANAGEMENT

	Department of Commerce
MIN	Department of Business Administration
GOAL	Department of Tourism Management

SCHOOL OF ALLIED HEALTH SCIENCE

PA	Department of Physician Assistant
OLC:	Department of Audiology and Speech Language Pathology
	Department of Physiotherapy
1 TA	Department of Optometry
>	Department of Clinical Embryology
	Department of Clinical Psychology

SCHOOL OF EDUCATION

	Department of Education NCTE	
till the	Department of Special Education	
	Department of Physical Education NCTE	ge 61

SCHOOL OF ENGINEERING

Biomedical Instrumentation Engineering

Civil Engineering

Computer Science and Engineering

Electronics and Communication Engineering

Food Processing and Preservation Technology

Printing Technology

Science & Humanities (Supporting department)

Consultancy and services offered by researchers of various School

Home Science

School of Home Science Consultancy entails professionals with a special impact on Home Science. Broad ranges of knowledge of the academicians are associated with the functional implications of the same field and hold several potentials to give valuable comments on their specialized field.

Consultants of different departments are associated with number of function that includes identification of problems, possible opportunities, analysis of the problem, and recommendation of appropriate measurement, implementation and assessment of recommended options. Potentialities of different department consultancy are listed below:

- 1. Resource Management: Interior design and CAD software designs
- 2. Food Service Management and Dietetics: Diet counselling and millet products
- Food Science and Nutrition: Food label design, calculation of nutritive value of foods, Edible packaging films and cups, Nutrient Analysis for Academic Institutions and Food Industries , Testing of products from Pharmaceutical Industries.
- 4. Textile and Clothing: Apparel Designing ,Non-woven fabrics and finishes
- 5. Human Development: Consultancy for TCS as Item creator and item Reviewer
- 6. Home Science Extension Education: NGO Management, Career Guidance, Facilitating Linkages and Start up Guidance.

The consultants take micro view and offers answers for micro outlook. They also refocus the implementing strategy by doing action research and consider for future opportunities. This helps School of Home Science to be more potential in consultancy.



S. No	Nature of Consultancy	Consultant name & Contact details	Charges (Rs)		Rs)
			Inside Institu tion	outside Institut ion	Industry
1.	Entrepreneurship Development	Dr.(Mrs.)R. Jansi Rani jansirani_ext@avinuty. ac.in	-	500	1000
2.	Entrepreneurship Development	Dr. P.Kalaivani	-	500 500	1000 1000
3.	1.NGO Management2. Career Guidance3. Facilitating Linkages4. Start up Guidance	Dr. S. Meenakshi meenakshi_extn@avin uty.ac.in	-	500 500 500 500	1000 1000 1000 1000
4.	1.NGO Management2. Career Guidance3. Facilitating Linkages4. Start up Guidance	Dr.(Mrs.) Parboti Prasad Raout parbotiprasadraout_ext n@avinuty.ac.in	-	500 500 1000 1500	500 1000 3000
5.	1.NGO Management2. Career Guidance3. Facilitating Linkages4. Start up Guidance	Dr. K. Sumathi Sumathi_extn@avinuty .ac.in	-	500 500 1000	1000 1000 2000

7.	1.NGO Management 2. Career Guidance 3. Facilitating Linkages 4. Start up Guidance 1.NGO Management 2. Career Guidance 3. Facilitating Linkages 4. Start up Guidance	Dr. D. Kokila kokila_extn@avinuty.a c.in Mrs. S. Sathya Priya sathyapriya_extn@avin uty.ac.in	-	500 500 1000 500 500 500 500	1000 1000 2000 1000 1000 1000
8.	Entrepreneurship Development	Dr.(Mrs.)R. Jansi Rani jansirani_ext@avinuty.	500	1000	1500
9.	NGO Management Career Guidance Facilitating Linkages Start up Guidance	Dr. S. Meenakshi meenakshi_extn@avin uty.ac.in	500	1000	1500
10.	Testing of Polyherbal formulations for Pharmaceutical Industries and Nutrient Analysis of food and animal feeds for Academic Institutions Food label design and nutritive value calculation	Dr.(Mrs.)C. A. Kalpana Email: kalpana_fsn@avinuty.a c.in	-	Nutrien t Analysi s - Rs 100- 500 / nutrient /sample	Pharmace utical - Rs 3,00,000
				Rs 2000/ per foo d label	
11.	Edible Packaging	Dr.(Mrs.)PA. Raajeswari Email: raajeswari_fsn@avinut y.ac.in	-	-	Edible cups 100 nos = Rs300 Edible Films 1 ream (500 sheets) =

					Rs 2000
12.	Moisture Content	Dr.(Mrs.)PA.	100.00	150.00	350.00
13.		Raajeswari	300.00	350.00	550.00
14.		Email:	700.00	750.00	950.00
	Protein Content	raajeswari_fsn@avinut	700.00	750.00	950.00
16 .	2 40 0 0 110 110	y.ac.in	700.00	750.00	950.00
17.			150.00	200.00	400.00
	Fiber Content		750.00	800.00	1000.00
19.			700.00	750.00	950.00
20.			700.00	750.00	950.00
21.	Phosphorous Content		700.00	750.00	950.00
22.	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		700.00	750.00	950.00
23.	Thiamin Content		800.00	850.00	1050.00
24.			800.00	850.00	1050.00
25.			450.00	500.00	700.00
26.			450.00	500.00	700.00
27.	RM Value of Oil		450.00	500.00	700.00
28.	L		450.00	500.00	700.00
29.			950.00	1000.00	1200.00
30.	Product development from	Dr.(Mrs.)S.	-	-	Rs
	Coconut flakes	Thilakavathy			10,000
		Email:thilakavathy_fsn			
		@avinuty.ac.in			
31.	Determination of Energy value of	Prof.C.A.Kalpana	250	250	250 500
	Foods using Bomb Calorimeter		500	500	600
	Toods using Bome Caronineter		600	600	
32.	Item creator and item reviewer	Dr.(Mrs.)K.Arockia	-	-	Rs
	for Tata Consultancy services,	Maraichelvi			50,000/-
	Bengaluru	arockia_hd@avinuty.ac			per year
	8	in			P == J ===
33.	Clinical validation for	Dr.S.Uma Mageshwari		As per san	nple
	therapeutic food (nutrient			=	
	deficiency ad NCD)				
	Clinical validation for ayurvedic				
	foods				
	Glycemic studies				
	Consultation for menu planning				
	for hospitals and dietary				
	÷				
			1		
	departments				
	ICT enabled diet tools /software				
	ICT enabled diet tools /software Nano products				
	ICT enabled diet tools /software				

34.	Consultation of value added products, edible films and therapeutic dietary formulations. Consultation on Food Safety in food service Nutrient analysis	Dr.P.L.Sridevi Sivakami	As per sample
35.	Clinical validation for therapeutic food (nutrient deficiency ad NCD) Glycemic studies Consultation for menu planning for hospitals and dietary departments ICT enabled diet tools /software Value added therapeutic product formulation Shelf life studies Traditional cuisines and food culture.	Dr.V.Premala Priyadarshini	As per sample
36.	Clinical validation for therapeutic food ICT enabled diet tools /software Consultation for menu planning for hospitals and dietary departments Diets for cancer patients Sport nutrition	Dr.S.Thilagamani	As per sample
37.	Clinical validation for therapeutic food (millets) Millet processing and product developments. Value addition in Channa based products Value added calcite products	Dr.R.Radha	As per sample
38.	Texture analysis Antioxidant analysis in food products Nutrient analysis	Dr.S. Karthiga	As per sample

Physical Sciences and Computational Sciences

The School of Physical Sciences and Computational Sciences integrates the knowledge and tools of chemistry and physics with the principles of computational science to understand and optimize the behaviour of materials, as well as to create new and improved materials. A multidisciplinary approach is adopted with machine learning (ML) and artificial intelligence (AI) applications to design and study physicochemical aspects of novel materials.

Solar energy research involving design of surface coatings on PV modules and formulation of dye sensitized solar cells with screen printed multifunctional nano particles., fabrication of lithium and non-lithium solid state batteries, semi-solid batteries with novel electrolytes and flexi super capacitors and exploration of novel materials to design prospective non linear optical materials by crystal engineering are the research thrust areas of the physics group. Computational biophysics group adopts computational methods for protein-protein interaction prediction using major databases, and molecular dynamic studies to understand the interaction between drug molecules with free radicals.

Extensive work on phytochemicals and their applications in personal and healthcare and bioactivity studies of phytochemicals has been the focus of the phytochemistry research group. Bio mediated synthesis of nanoparticles and nano composites and their applications in health care, as surface coatings and design of new materials is the thrust of the nano science group. Fabrication and performance evaluation of soft material for health - anti microbial trans dermal patches, sunscreen lotions, biodegradable polymers and gold nanoparticle-decorated skin substitutes is extensively carried out. The chemistry group has been focussing on several methods of corrosion mitigation using inorganic, polyfunctional compounds, organic/inorganic composite materials and organic amphiphilic inhibitors. Anti-corrosion and anti-biofouling materials are being designed by the group and studied.

S.N o.	Nature of Consultancy	Consultant name & Contact details	Charges (Rs)		
			Inside Institutio n	outside Institution	Industry
1.	Formulation of Green Corrosion inhibitors for electroplating industries	Dr.R.Saratha, Professor & Head Department of Chemistry saratha_chem@avinuty.a c.in	Dependi ng on the metal	Depending on the metal	Depending on the metal
2.	Fabrication of anti microbial herbal textiles	Dr. Shubashini K Sripathi Professor of Chemistry subhashiniksripathi@avi nuty.ac.in	1000 per sample	2000 per sample	-
3.	Formulation of skin creams and wound healing ointments	Dr. Shubashini K Sripathi Professor of Chemistry subhashiniksripathi@avi nuty.ac.in	1000 per sample	2000 per sample	
4.	*Isolation of Natural Products and Quantification of active molecules Standardization of Medicinal Plant Extracts,Phytochemic al profiling *only consultancy	Dr. Shubashini K Sripathi Professor of Chemistry subhashiniksripathi@avi nuty.ac.in	-	500	1000
5.	Extraction of 500g to 1 Kg of plant material can be outsourced	Dr. Shubashini K Sripathi Professor of Chemistry <u>subhashiniksripathi@avi</u> <u>nuty.ac.in</u>	500 solv ent charges additiona l	1000 solvent charges additional	2500 solvent charges additional
6.	Bulk extraction of plant material- Extraction of 20 Kg of plant material – Water extracts for	Dr. Shubashini K Sripathi Professor of Chemistry <u>subhashiniksripathi@avi</u> <u>nuty.ac.in</u>	1000	3000	-

	use in dyeing				
7.	Interpretation of SEM and other spectral data	Dr.P.Lalitha Professor of Chemistry Director R&D ic Lalitha_chem@avinuty.a c.in	200	200	500
8.	Nanoparticle synthesis-Nanogold, Nanosilver, Nanozinc – and characterization	Dr.P.Lalitha Professor of Chemistry Director R&D ic Lalitha_chem@avinuty.a c.in	Dependin g on metal	200	500
9.	Phytochemical screening of plant extracts	Director R&D ic Lalitha_chem@avinuty.a c.in	200		
10.	NMR structure elucidation	Dr.P.Lalitha Professor of Chemistry Director R&D ic Lalitha_chem@avinuty.a c.in	Based on structure and number of spectra	200	400
11.	Design of Experiments- modeling an experiment based on trial runs,	Dr.P.Lalitha Professor of Chemistry Director R&D ic Lalitha_chem@avinuty.a c.in	200		
12.	Drug designing	Dr.P.Lalitha Professor of Chemistry Director R&D ic Lalitha_chem@avinuty.a c.in	Based on drug	200	500
13.	Reduced graphene oxide – few layer synthesis and characterization	Dr.P.Lalitha Professor of Chemistry Director R&D ic Lalitha_chem@avinuty.a c.in	200		
14. 15.	Fabrication of Polymer Surface Coatings (Self Cleaning) Preparation of Antibacterial Thin films	Dr. J. Shanthi Professor of Physics shanthi_phy@avinuty.ac. in	500	500	2000
TO.	Battery materials	Dr.B.Nalini	500	500	1000

10	Quality test and reporting (per sample)	Assistant Professor Department of Physics nalini_phy@avinuty.ac.i n			
16.	Tailoring of battery material for required performance	Dr.B.Nalini Assistant Professor Department of Physics nalini_phy@avinuty.ac.i n	500	1000	5000
17.	Assembling and characterization of any type of electrochemical cell	Dr.B.Nalini Assistant Professor Department of Physics nalini_phy@avinuty.ac.i n	1000	500	1000
18.	Structural analysis of any inorganic material through rietveld analysis	Dr.B.Nalini Assistant Professor Department of Physics nalini_phy@avinuty.ac.i n	500	750/person/ month	750/person/ month
19.	Aptitude Training TNPSC Coaching (for mathematics content only)	Dr. N. Balamani, Assistant Professor (SS) & Head (i/c) Department of Mathematics balamani_mat@avinuty.a c.in	500/perso n/month	1500/person /month	1500/perso n/month
20.	SET/NET /CSIR- Paper I Coaching	Dr. D. Jayanthi, Assistant Professor (SS) Department of Mathematics jeyanthi_mat@avinuty.ac .in	1000/pers on/month		
21.	Vulnerability Assessment, Security Auditing, Cyber Attack handling through Machine learning	Dr.Padmavathi Ganapathi Professor of Computer Science Dean, School of PSCS padmavathi_cs@avinuty. ac.in			
22.	Biometric Authentication for Fraud Detection.	Dr. D. Shanmugapriya Head, Department of Information Technology	Based on type of Authentication and required solutions charges will differ		

	Assist in identifying and assessing threats	shanmugapriya_it@avinu ty.ac.in			
	and security risks in				
	the organizations and				
	suggest the best				
00	solutions				
23.	Application of AI		Depends		
	and ML for other	Professor of Computer	on the		
	domains	Science	application		
		subashini_cs@avinuty.ac	and the		
		.in	number of		
24.	AT intenfered	Dr. D. Cychookini	modules		
24.	AI interfaces,	Dr. P.Subashini	Depends		
	software, API etc	Professor of Computer Science	on the		
			application and the		
		subashini_cs@avinuty.ac	number of		
		.in	modules		
25.	Expertise in building	Dr. P.Subashini	Depends		
20.	up AI based smart		on the		
	applications for	Science Computer	application		
	household – one of	subashini_cs@avinuty.ac	and the		
	the team participated	.in	number of		
	in Solar Decathlon	.111	modules		
	Africa, 2019		modales		
26.	Expertise in building	Dr. P.Subashini	Depends		
	up AI based smart	Professor of Computer	on the		
	applications for	Science	application		
	campuses – deployed	subashini_cs@avinuty.ac	and the		
	smart solutions in the	.in	number of		
	university		modules		
27.	AI based Assistive	Dr. P.Subashini	Depends		
	Technology	Professor of Computer	on the		
		Science	application		
		subashini_cs@avinuty.ac	and the		
		.in	number of		
			modules		
28.	Android based	Dr. P.Subashini	Depends		
	mobile application	Professor of Computer	on the		
	development	Science	application		
		subashini_cs@avinuty.ac	and the		
		.in	number of		
29.	Doutele fem Die't 1	Da D Cultion historia	modules	20,000	50,000
23.	Portals for Digital	Dr. P.Subashini	20,000	30,000	50,000
	Museums	Professor of Computer			

		Science subashini_cs@avinuty.ac .in			
30.	Working with special and optimized solar architectures — worked with Moroccan universities and established an advanced optimized solar architecture	Dr. P.Subashini Professor of Computer Science subashini_cs@avinuty.ac .in	5,000	10,000	25,000
31.	Embedded hardware applications	Dr. M.Krishnaveni, Assistant Professor (SS) krishnaveni_cs@avinuty. ac.in	As per application		
32.	IoT based Smart applications, Scientific applications	Dr. M.Krishnaveni, Assistant Professor (SS) krishnaveni_cs@avinuty. ac.in	As per application		
33.	IoT based Assistive Technology	Dr. M.Krishnaveni, Assistant Professor (SS) krishnaveni_cs@avinuty. ac.in	As	per applicat	ion
34.	Smart farming	Dr. M.Krishnaveni, Assistant Professor (SS) krishnaveni_cs@avinuty. ac.in			
35.	3D printing applications	Dr. M.Krishnaveni, Assistant Professor (SS) krishnaveni_cs@avinuty. ac.in			
36.	Android based mobile application development	Dr. M.Krishnaveni, Assistant Professor (SS) krishnaveni_cs@avinuty. ac.in	As per application		
37.	Dr. A. Prithiba	Corrosion Studies Calculation and Interpretation	100	100	100
38.	Dr. E. Yamuna	Interpretation of compounds IR	50	50	50
39.	Dr. E. Yamuna	Interpretation of compounds UV	50	50	50
40.	Dr. E. Yamuna	Interpretation of compounds ¹ H-NMR	100	100	100

41.	Dr. E. Yamuna	Interpretation of compounds ¹³ C-NMR	125	125	125
42.	Dr. E. Yamuna	Interpretation of compounds HMBC	200	200	200
43.	Dr. E. Yamuna	Interpretation of compounds HMQC	200	200	200
44.	Dr. E. Yamuna	Designing Drug Molecules/Schemes	2000	2000	2000
45.	Dr. E. Yamuna	Proposed Mechanism for final compounds	1000	1000	1000
46.	Vulnerability Assessment/VAPT	Centre for Cyber Intelligence – DST – CURIE – AI Phase II	Rs. 1000/hr/la b	Rs. 2000/hr/l ab	Rs. 2000/hr/la b
		cent_ci@avinuty.ac.in padmavathi_cs@avinuty.a c.in	Based on type of vulnerabilit y and number of systems to be tested the charges will differ as per time duration taken	Based on type of vulnerabili ty and number of systems to be tested the charges will differ as per time duration taken	Based on type of vulnerability and number of systems to be tested the charges will differ as per time duration taken
47.	Security Auditing	Centre for Cyber Intelligence – DST – CURIE – AI Phase II	Rs. 1000/hr/la b	Rs. 2000/hr/l ab	Rs. 2000/hr/la b
		cent_ci@avinuty.ac.in padmavathi_cs@avinuty.a c.in	Based on the auditing coverage the charges will differ as per time taken	Based on the firm the charges will differ as per time taken	Based on the firm the charges will differ as per time taken
48.	Consulting Services as interdisciplinary approach with Psychology Department • Preventive Workshop • Emotional Intelligence Workshop	Centre for Cyber Intelligence - DST - CURIE - AI Phase II cent_ci@avinuty.ac.in padmavathi_cs@avinuty.a c.in	Rs. 100/perso n	Rs. 200/perso n	Rs. 500/person

49.	Awareness Workshop Individual / Group Consultancy Services Social Media Addictions Psychological Consultancy of human behaviours to prevent against cyber criminals Analysis of Cyber Attacks through Machine Learning	Centre for Cyber Intelligence - DST - CURIE - AI Phase II cent_ci@avinuty.ac.in padmavathi_cs@avinuty.a c.in	Rs. 5000 Depends on Dataset and Algorithm to be implement ed	Rs. 10,000 Depends on Dataset and Algorithm to be implement ed	Rs. 10,000 Depends on Dataset and Algorithm to be implemente d
50.	Biometric authentication for fraud detection	Centre for Cyber Intelligence - DST - CURIE - AI Phase II cent_ci@avinuty.ac.in padmavathi_cs@avinuty.a c.in	Rs. 5000 Depends on Dataset and Algorithm to be implement ed	Rs. 10,000 Depends on Dataset and Algorithm to be implement ed	Rs. 10,000 Depends on Dataset and Algorithm to be implemente d

Biosciences



Avinashilingam Institute for Home Science and Higher Education for Women (Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Colmbatore - 641 043, Tamil Nadu, India

The mandate of School of Biosciences is to provide support in the efforts of drug development and testing in terms of in vitro anticancer, cytotoxicity, genotoxicity and wound healing studies for academicians as well as private companies. In vitro screening is carried out using MTT assay as per standard protocols. In vitro testing also involves SDS PAGE and Agarose Gel Electrophoresis, Comet Assay and Wound healing-Scratch test and In silico docking using Autodock. The complete MTT, Scratch and Comet assay, agarose gel electrophoresis, SDS-PAGE set up has been developed and standardized in house.

SDS - polyacrylamide gel electrophoresis (SDS-PAGE), a commonly used technique, can yield information about a protein's size (molecular weight) and yield (quantity). The *in vitro* scratch assay is a well-developed method to evaluate cell migration and is very useful to evaluate wound healing. For determination of DNA single- and double-strand breaks, a single-cell gel electrophoresis assay (Comet Assay) is used. Agarose gel electrophoresis is used in biochemistry, molecular biology, genetics, and clinical chemistry to separate a mixed population of macromolecules such as DNA , RNA or proteins. In silico docking techniques are being used to investigate the complementarity at the molecular level of a ligand and protein targets.

The facility is fully equipped for carrying out the in vitro and *in silico* testing. The school has the expertise and established infrastructure of biosafety cabinets, laminar air flow systems, and automated liquid handling systems.

Man power is available to carry out Consultancy projects in the following areas:

- 1. Cancer biology based on animal cell lines
- 2. Assessment of cytotoxicity
- 3. Mechanism of action of compounds of anticancer, antidiabetic and antiinflammatory activities
- 4. Cell death assays
- 5. Cell cycle analysis
- 6. Molecular Docking and ADMET Prediction using open source softwares
- 7. Assessment of liver and kidney functions
- 8. Micropropagation
- 9. Extraction, isolation, concentration and documentation of intracellular proteins
- 10. Toxicity assays with a standardized protocol using the Caenorhabditis elegans as model organisms.
- 11. Analysis of water samples



Phase Contrast Flourescent Microscope



Nanospectrophotometer



Real Time PCR

High Performance Liquid Chromatography



Two-Dimensional Gel Electrophoresis



Microplate Reader



Flow cytometer



Plant Tissue Culture Laboratory



Automated Clinical Chemistry Analyser



Gel Documentation System



Co₂ Incubator

S.No	Consultancy expertise	Name of the Faculty	Charges for our institute scholars	For Outside institutio ns	For industry	Sample requireme nts
1.	Anticancer & cytotoxicity studies-MTT assay	Dr.K S Santhy santhy_zoo@avinuty.ac.in	750	900	1050	2 ml
2.	SDS Page	Dr.K S Santhy santhy_zoo@avinuty.ac.in	1200	1440	1680	2 ml
3.	Wound healing- Scratch test	Dr.K S Santhy santhy_zoo@avinuty.ac.in	2500	3000	3500	2 ml
4.	Comet Assay	Dr.K S Santhy santhy_zoo@avinuty.ac.in	2000	2400	2800	2 ml
5.	Acute skin irritation test (mice model0029	Dr.K S Santhy santhy_zoo@avinuty.ac.in	5000	6000	6500	
6.	Total microbial count	Dr.K S Santhy santhy_zoo@avinuty.ac.in	1000	1200	1300	
7.	MTT assay (NIH3T3 fibroblast cell line- skin cell line)	Dr.K S Santhy santhy_zoo@avinuty.ac.in	3000	3600	3900	
8.	Agarose Gel Electrporosis	Dr.K S Santhy santhy_zoo@avinuty.ac.in	750	900	1050	2 ml
9.	Consultancy	Dr.K S Santhy santhy_zoo@avinuty.ac.in	1000/ per hour	1200/ per hour	1400/ per hour	online/offlin e
10.	Insilico studies using Autodock	Dr.K S Santhy santhy_zoo@avinuty.ac.in	500	600	700	Protein/liga nd name
11.	Toxicity Assays using Caenorhabditis elegans MTT assay	Dr. P. Chitra Chitra_zoo@avinuty.ac.in	800	1000	1100	5 ml
12.	Apoptosis Assay	Dr. P. Chitra Chitra_zoo@avinuty.ac.in	1000	1200	1500	5 ml
13.	lipofuscin Assay	Dr. P. Chitra Chitra_zoo@avinuty.ac.in	1000	1200	1500	5 ml
14.	Physico chemical characterisation of water samples	Dr.M.Poonkothai poonkothaii_zoo@avinuty .ac.in	1500	2000	2500	21
15.	MPN Analysis	Dr.M.Poonkothai poonkothaii_zoo@avinuty .ac.in	200	400		250ml
16.	cytotoxicity testing and metabolic activity	Dr.S.Sumathi sumathi_bc@avinuty.ac.in	250 /treatment group	500/treat ment group	1000/ sample	
17.	Mechanism of action of compounds for specific conditions - anticancer, antidiabetic, anti-inflammatory and	Dr.S.Sumathi sumathi_bc@avinuty.ac.in	depends on number of assays			
18.	migration assay	Dr.S.Sumathi sumathi_bc@avinuty.ac.in	250 /treatment group	500/treat ment group	1000/ sample	
19.	angiogenesis assays	Dr.S.Sumathi sumathi_bc@avinuty.ac.in	250 /treatment	250 /treatmen	250 /treatmen	

			group	t group	t group
20.	Mechanism of cell	Dr.S.Sumathi	500/sampl	750/sam	1000/sa
	death - staining	sumathi_bc@avinuty.ac.in	е	ple	mple
21.	Mechanism of cell	Dr.S.Sumathi	500/sampl	1000/sa	1500/sa
	death - flow cytometry	sumathi_bc@avinuty.ac.in	е .	mple	mple
22.	cell cycle analysis	Dr.S.Sumathi	500/sampl	1000/sa	1500/sa
	-	sumathi_bc@avinuty.ac.in	e	mple	mple
23.	Assays in specific cell	Dr.S.Sumathi	3000 per	3000 per	3000 per
	lines	sumathi_bc@avinuty.ac.in	cell line	cell line	cell line
24.	Consultancy	Dr.S.Sumathi	1000/ per	1200/ per	1400/ per
		sumathi_bc@avinuty.ac.in	hour	hour	hour
25.	Lyophilization of the sample	Dr. Anitha Subash Dr.A.Shobana Dr.K.V. Shalini anithasubash_bc@avinut y.ac.in	300/sampl e	600/sam ple	1000/sa mple
26.	Gel documentation for protein and nucleic acids	Dr. Anitha Subash Dr.A.Shobana Dr.K.V. Shalini anithasubash_bc@avinut y.ac.in	100/sampl e	250/sam ple	500/sam ple
27.	UV spectrophotometer	Dr. Anitha Subash Dr.A.Shobana Dr.K.V. Shalini anithasubash_bc@avinut y.ac.in	100/sampl e	250/sam ple	500/sam ple
28.	Cell distruptor	Dr.N.Santhi Dr.M.Rajeswari anithasubash_bc@avinut y.ac.in	150/sampl e	250/sam ple	500/sam ple
29.	Molecular Docking and ADME Prediciton using open source softwares	Dr.M.Rajeswari rajeshwari_bc@avinuty.ac .in	500/target - 10 ligands	1000/targ et - 10 ligands	1500/targ et - 10 ligands
30.	Mechanism of	Dr.D.Kavitha	1000/samp	1500/sa	2000/sa
	antimicrobial compounds	kavitha_bio@avinuty.ac.in	le	mple	mple
31.	Alpha-amylase inhibitory activity	Dr.S.Gayathri Devi, Dr.S. Velvizhi, Dr.C.C.S. Vasundhara gayathridevi_bc@avinuty. ac.in	500/sampl e	750/sam ple	1000/sa mple
32.	Glucose diffusion assay	Dr.S.Gayathri Devi, Dr.S. Velvizhi, Dr.C.C.S. Vasundhara velvizhi_bc@avinuty.ac.in	500/sampl e	750/sam ple	1000/sa mple
33.	Glucose uptake assay by yeast cells	Dr.S.Gayathri Devi, Dr.S. Velvizhi, Dr.C.C.S. Vasundhara vasundhara_bc@avinuty. ac.in	500/sampl e	750/sam ple	1000/sa mple
34.	Lipid profile test- HDL, Total Cholesterol,	Dr.S.Gayathri Devi, Dr.S. Velvizhi, Dr.C.C.S. Vasundhara vasundhara_bc@avinuty.	750/Sampl e	1000/Sa mple	1250/Sa mple

	Triglycerides, LDL, VLDL	ac.in				
35.	Renal markers- SGOT,SGPT, ALP	Dr.S.Gayathri Devi, Dr.S. Velvizhi, Dr.C.C.S. Vasundhara vasundhara_bc@avinuty. ac.in	750/ Sample	1000/Sa mple	1200/Sa mple	
36.	Hepatic markers- Urea, Creatinine, Urea- creatinine ratio	Dr.S.Gayathri Devi, Dr.S. Velvizhi, Dr.C.C.S. Vasundhara vasundhara_bc@avinuty. ac.in	500/Sampl e	750/sam ple	1000/sa mple	
37.	Plant nutrient analyser	Dr. G. Sakthivigneswari sakthivigneswari_bot@av inuty.ac.in and Dr. V. Gayathri gayathri_bot@avinuty.ac.i n	100	150	200	3 fresh leaves

Arts and Social Sciences

SN o	Potential Consultancy Services	Consultant contact	Fees (In Rs.) Inside Beneficiaries
1.	Correlation Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
2.	Regression Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.200 per 100 observations with 5 and above independent variables
3.	T test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
4.	One sample t test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
5.	Two independent sample t test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
6.	Paired sample t test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
7.	ANOVA	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
8.	MANOVA	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
9.	Chi quare test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.100 per 100 observations
10.	Chow test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation

11.	Probit Regression Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
12.	Logit Regression Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
13.	Discriminant Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
14.	Factor Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
15.	Cluster Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
16.	Non Parametric Test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
17.	One sample	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
18.	Two independent sample test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
19.	K Independent sample	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
20.	Two related sample test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
21.	K related sample test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
22.	Tobit regression analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation

23.	Binary Logistic Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
24.	Curve Estimation	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
25.	Non linear Regression	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
26.	Two stage least square regression Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
27.	Three stage least square regression	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
28.	Time Series Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
29.	Unit root test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
30.	Lag length criteria	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
31.	Co integration Regression Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
32.	Error Correction Model	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
33.	Granger causality Test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
34.	Cusum and Cusum Square test	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation

35.	Path Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
36.	Structural Equation Modelling	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
37.	Cobb Douglas Production Function	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
38.	Frontier Production Function	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
39.	Switching Regression Modelling	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
40.	Business Model	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
41.	Censored Regression Analysis	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
42.	Heckman sample selection model	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	Rs.500 per 100 observation
43.	Miscellaneous	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	
44.	Coaching for TNPSC Examinations and UPSC Examinations-Group I,II, IIA , IV	Dr S. Gandhimathi gandhimathi_eco@avinuty.ac.i n	

Commerce and Management

E filing of Income Tax Returns

Electronic filing is income tax returns is carried out by the staff of Commerce Department with the help of trained students. E-filing gives taxpayers the benefit of updating the status in real-time and the return has been received and accepted. As it becomes mandatory to file the returns it saves the time of both tax filers as well as the income tax department. The commerce department is rendering consultancy service to both teaching and non-teaching staff of the institution each year on payment of a nominal fee.





Discussion with Mr.G.Daniel Prabhakaran, Chief Executive Officer , Annamalai Innovation and Incubation Research Foundation , Annamalai University and Mr.K.Vivekanandan, Managing Director , Faraday Ozone for consultancy prospects in Talent Management in their respective organisations

S. N	Potential Consultancy	Consultant contact	Fees (In Rs.)		
0	Services		Inside Beneficiar ies	Outside Beneficiari es	Industrialists
1.	E-filing of Income Tax Returns	Dr.P.Deivanai Assistant Professor (SS) deivanai_comm@avinuty.ac.i n	300	1000	1000
2.	Investment Planning for Tax Exemption	Dr.P.Santhi Professor shanthi <u>comm@avinuty.ac.in</u>	300	500	500
3.	Segmentation and Target Market Analysis	Dr.P.Santhi Professor Dr.P.Deivanai Assistant Professor (SS) shanthi comm@avinuty.ac.in deivanai comm@avinuty.ac.i n	1000	2000	2000

4.	Financial Feasibility Analysis for	Dr.K .Kannaiammal Professorkannaiammal comm @avinuty.ac.in	1000	1000	2000
	Project Proposals				
5.	Construction of Research Instrument for Social Science Research	Dr.P.Santhi Professor Dr V.Vimala Assistant Professor (SS) shanthi comm@avinuty.ac.in vimala_comm@avinuty.ac.in	1000	1000	2000
6.	Assistance in Registration for Start ups	Dr.D.Vennila Assistant Professor (SG) Dr K.Vidhyakala Assistant Professor (SS) vennila_comm@avinuty.ac.in vidhyakala_comm@avinuty.a c.in	500	500	500
7.	PAN Card and linkage with authorized accounts and IDs	Dr.V.Vimala Assistant Professor (SS) vimala_comm@avinuty.ac.in	200	200	200
8.	Accounting Software - Administration setup & Installation	Dr.P.Sasirekha Assistant Professor sasirekha_comm@avinuty.ac.i n	500	500	1000
9.	Financial analytics with Excel Applications	Dr A.R.Rihana Assistant Professor rihana_comm@avinuty.ac.in	500	1000	1000
10.	DEMAT Account opening services and Online Trading Tips	Dr.V.Vimala Assistant Professor vimala_comm@avinuty.ac.in	200	250	250
11.	Management Facilitating	Dr.J.Arthi arthi mba@avinuty.ac.in	Duration Based Rs15,000	Rs.25,00 0/-	Rs. 50,000/-
12.	Behavioural Data Detectives	Dr.J.Arthi arthi_mba@avinuty.ac.in	One Time Assignm	Rs. 50,000/-	Rs.75,000/-

			ent Rs.		
10	*** 1 1	D. I.A.d.	25,000/-	D	D 17 000/
13.	Workplace	Dr.J.Arthi	Rs.2,000/	Rs.	Rs.15,000/-
	Environment	arthi_mba@avinuty.ac.in	- Per	10,000/-	
1.4	Designing	D. T.A. d.:	visit	D	D 77 000/
14.	Cross Functional	Dr.J.Arthi	Rs.25,00	Rs.	Rs.75,000/-
	Collaborations	arthi_mba@avinuty.ac.in	0/- (No.	50,000/-	
			of		
			Teams/D		
15.	Social	Dr.J.Arthi	epts.) Rs.25,00	Rs.	Rs.75,000/-
13.			0/- (No.	50,000/-	KS./3,000/-
	Intelligence Audit	arthi_mba@avinuty.ac.in 9843676144	of	30,000/-	
	Audit	9643070144	Employe		
			es.)		
16.	Financial	Dr.A.Pankajam	Rs.2000/	Rs.3000/-	Rs.5000/- per
10.	Forecasting	pankajam_mba@avinuty.ac.in	- per	per	Session
	Torceasting	pankajam_moa@avmaty.ac.m	Session	Session	Session
17.	Financial	Dr.A.Pankajam	Rs.2000/	Rs.3000/-	Rs.5000/- per
17.	Feasibility Study	pankajam_mba@avinuty.ac.in	- per	per	Session Per
	Tousionity Study	paining and a viniary incim	Session	Session	Session
18.	Financial	Dr.K.Ramya	Rs.3000/	Rs.5000/-	
10.	Planning for	ramya_mba@avinuty.ac.in	- per	per	
	Individuals		Person	Person	
19.	Income Tax	Dr.K.Ramya	Rs.750/-	Rs.1000/-	
	Filing for	ramya_mba@avinuty.ac.in	per	per	
	Individuals		Person	Person	
20.	Qualitative Data	Dr.K.Ramya	Rs.3000/	Rs.5000/-	Rs.10,000/- per
	Analysis	ramya_mba@avinuty.ac.in	- per	per	Session
	-		Session	Session	
21.	Quality	Dr.K.Ramya		Rs.2000/-	
	Enhancement in	ramya_mba@avinuty.ac.in		per	
	Higher			Session	
	Educational				
	Institution				
22.	Business Process	Dr.P.Chitramani			Rs.2,00,000/-
	Engineering &	chitramani_mba@avinuty.ac.i			to
	Automation	<u>n</u>			Rs.25,00,000/-
					(based on the
	7.7	D D CI : .			module)
23.	Mapping	Dr.P.Chitramani		•••	Rs.2,00,000/-
	Integrated	chitramani_mba@avinuty.ac.i			to
	Supply Chain	<u>n</u>			Rs.25,00,000/-
	Processes				(based on the
					module)

24.	AI Embedded Digital Marketing Processes & Procedures Talent 4.0 & 5.0 Mapping & GAP Analysis	Dr.P.Chitramani chitramani mba@avinuty.ac.i n Dr.P.Chitramani chitramani mba@avinuty.ac.i n			Rs.2,00,000/- to Rs.25,00,000/- (based on the module) Rs.2,00,000/- to Rs.25,00,000/- (based on the
26.	Training: Lean &Green Supply Chain Management	Dr.P.Chitramani chitramani_mba@avinuty.ac.i n	Rs.1000/ - per Person	Rs.1500/- per Person	module) Rs.5000/-
27.	Training: Talent Management	Dr.P.Chitramani chitramani_mba@avinuty.ac.i n	Rs.1000/ - per Person	Rs.1500/- per Person	Rs.5000/-
28.	Training: E- Customer Relationship Management	Dr.P.Chitramani chitramani mba@avinuty.ac.i n	Rs.1000/ - per Person	Rs.1500/- per Person	Rs.5000/-
29.	Training: Marketing to the bottom of the Pyramid	Dr.P.Chitramani chitramani mba@avinuty.ac.i n	Rs.1000/ - per Person	Rs.1500/- per Person	Rs.5000/-
30.	Training: Sustainable Business Models	Dr.P.Chitramani chitramani-mba@avinuty.ac.i n	Rs.1000/ - per Person	Rs.1500/- per Person	Rs.5000/-
31.	Training: AI Embedded Business Processes	Dr.P.Chitramani chitramani-mba@avinuty.ac.i n	Rs.1000/ - per Person	Rs.1500/- per Person	Rs.5000/-
32.	Five 'S' in Office Administrations	Dr.K.Ramya ramya_mba@avinuty.ac.in	Rs.2000/ - per Session	Rs.2500/- per Session	Rs.5000/- per Session
33.	A to Z of Assessment of NAAC	Dr.K.Ramya <u>ramya_mba@avinuty.ac.in</u>	Rs.2000/ - per Session	Rs.2500/- per Session	
34.	Soft Skill Training	Dr.T.Amutha amutha mba@avinuty.ac.in	Rs.750/- per Person	Rs.1000/- per Person	Rs.2000/- per Session
35.	HR- Transformation	Dr.T.Amutha amutha mba@avinuty.ac.in	Rs.5000/ - per	Rs.6000/- per	Rs.10,000/- per Session

				Session	Session	
36.	Data Analytics	Dr.T.	Amutha	Rs.2000/	Rs.3000/-	
	•	amutha_mba(@avinuty.ac.in	- per	per	
			•	Session	Session	
37.	Placement	Dr.M	.Iswarya	Rs.3000/	Rs.3500/-	
	Trainings (GD's,	<u>iswarya</u> mb	a@avinuty.ac.in	- per	per	
	Interviews)			Session	Session	
38.	Resume	Dr.M.Iswar	iswarya_mba@av	Rs.750/-	Rs.1000/-	
	Construction	ya	inuty.ac.in	per	per	
				Person	Person	
39.	Soft Skills	Dr.M.Iswar	iswarya_mba@av	Rs.3000/	Rs.3500/-	
	Training	ya	inuty.ac.in	- per	per	
				Session	Session	
40.	Workplace	Dr.R.Hema	hemavathy_mb	Rs.3000/	Rs.3500/-	Rs.5000/- per
	Etiquette	vathy	a@avinuty.ac.i	- per	per	Session
			<u>n</u>	Session	Session	
41.	Making of Video	Dr.D.Arthi	arthid_mba@a	Rs.2000/	Rs.2500/-	Rs.5000/- per
	for Micro		vinuty.ac.in	- per	per	Session
	Teaching			Session	Session	
42.	Travel Booking	Dr.Bindu.	bindu_tm@avi	5%	6%	Nil
	For Students	V.T,	nuty.ac.in	Commiss	Commiss	
	And Faculty	Asst.Profess		ion From	ion From	
		or &		The	The Total	
		Head(i/c)		Total	Amount	
				Amount		
43.	Digital Inventory	Dr.Sandhya	<u>Sandhyadurga</u>	Per	Per	Per Enquiry 4
	Creation	Durga	tm@avinuty.ac.	Enquiry	Enquiry	Rupees
		Prasad,	<u>in</u>	1 Rupee	2 Rupees	
		Asst.				
		Professor				
		(Temp)		2		
44.	Feasibility of	Dr.K.Sathiy	sathyabamavat	3%	4%	5%
	New	abamavathy,	hy_tm@avinut	Commiss	Commiss	Commission
	Destinations &	Asst.	<u>y.ac.in</u>	ion from	ion From	From The Tour
	Marketing	Professor		the Tour	The Tour	Operator With
	Planning	(Temp)		Operator	Operator	The Tie Up
	Strategies For			With Tie	With The	Member
	Existing			Up	Tie Up	
4.5	Destinations.	M DT		Member	Member	NIII
45.	All Tour	Mrs.R.Jincy	jincy_tm@avin	For	From	NIL
	Planners For	Teaching	uty.ac.in	Local	Other	
	Students, &	Assistant		Universit	State	
	Faculty	(Temp)		y Cturdomto	Universit	
				Students	y Student	

				Per Head	Per Head	
				50	100	
				Rupees	Rupees	
46.	Assistance For	Mrs.P.Nisha	nishanthi_touri	6%	7%	8%
	Travel Related	nthi,	sm@avinuty.ac	Commiss	Commiss	Commission
	Documents-	Teaching &	<u>.in</u>	ion From	ion From	From The Tour
	Passport, Visa,	Research		The Tour	The Tour	Operator With
	Insurance, and	Fellow		Operator	Operator	Tie Up
	Health	(Temp)		With Tie	With Tie	Member
	Certificates Etc.			Up	Up	
				Member	Member	

Education

School of Education comprises of three departments -Department of Education, Department of Special Education and Department of Physical Education.

Being a School producing professionals in Teaching, rehabilitation of persons with Special needs and sports promotion the school of Education has a a full-fledged faculty with the experts in all areas of curriculum framing, pedagogical approaches, e-content development, preparation of different instructional materials, remedial coaching for students with learning problems, Aptitude testing and Vocational counselling for School students, support to school administration and management and in-service training for teachers. The school also can provide Education, Training, Counselling and Rehabilitation of Persons with Special Needs and pave away for inclusive growth. Adapted Sports for differently abled. Fitness & Weight Management, Yoga & Stress Management. Women Fitness programme, Aerobic training and Skill development in various Sports and games are also the potential areas for consultancy of School of Education

S.No.	Nature of Consultancy work	Name and Designation, Field of Expertise and
		Contact details
1.	Counselling to teachers in higher	
	education sector to manage	
	diverse learners	
2.	Educational Research and	Dr.InduH
	Statistical analysis	Professor, Department of Education
		indu_edu@avinuty.ac.in
3.	Designing and implementing	Dr.Manimozhi,S.S
	strategies that improve student	Professor, Department of Education
	outcomes	manimozhi_edu@avinuty.ac.in
4.	Consultancy services to school	Mrs. S.Andal
	students on their projects	Assistant Professor(SS)
		Department of Education
		andal_edu@avinuty.ac.in
5.	Identifying learning disability and	Mrs.R.Vaijayanthi
	help in taking remedial measures to	Assistant Professor(SG)
	school students	Department of Education
		vaijanthi_edu@avinuty.ac.in
6.	Preparation, Assessment and	Dr.C.Karthik Deepa
	Evaluation of E content	Assistant Professor(SS)
		Department of Education
		karthikdeepa_edu@avinuty.ac.in
		9976131831
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7.	Media selection for teaching, learning and evaluation	Dr.C.Karthik Deepa Assistant Professor(SS) Department of Education karthikdeepa_edu@avinuty.ac.in 9976131831
8.	To educate and advise students on the best universities based on students' scholastic Capabilities and requirements	Mrs. A.Suryalatha Assistant Professor Department of Education Suryalatha edu@avinuty.ac.in
9.	Aptitude testing and Vocational counselling for High School and Higher Secondary School students	Mrs. M.Vijayalakshmi Assistant Professor Department of Education vijayalakshmi_edu@avinuty.ac.in
10.	Career advancement counselling for school teachers	Dr Vidya,S Assistant Professor Department of Education vidya_edu@avinuty.ac.in
11.	Designing appropriate Curriculum at different levels of Education like Primary, Secondary, Higher Secondary and Higher Education	Dr.Santhoshini,K Assistant Professor Department of Education santhoshini_edn@avinuty.ac.in

Physical Education

S.No	Nature of Consultancy work	Name and Designation, Field of Expertise and Contact details
1.	Yoga & Stress Management	Dr.P.Vanithamani
	1 ogw et 2 u ess inimingement	Associate Professor
		Department of Physical Education
		Vanithamani_phys@avinuty.ac.in
2.	Fitness & Weight Management	Mrs.A.Siyasankari
		Assistant Professor
		Department of Physical Education
		Sivasankari_phyedn@avinuty.ac.in
3.	Skill development in various Sports	Dr.T.Shanmugavalli
	and games	Associate Professor
	Volleyball	Department of Physical Education
	, , , , , , , , , , , , , , , , , , , ,	shanmugavalli_phys@avinuty.ac.in
		Dr.R.Saravana Prabha
		Associate Professor
	Athletics	Department of Physical Education
		prabha_phys@avinuty.ac.in
		Dr.P.Vanithamani
		Associate Professor
	Kho Kho	Department of Physical Education
	Into Into	Vanithamani_phys@avinuty.ac.in
		Dr.M.Mary Glory Ponrani
		Assistant Professor
	Racket Sports	Department of Physical Education
	Rucket Sports	Marygloryponrani_phyedn@avinuty.ac.in
		Dr.S.Akilandeswari
		Assistant Professor
	Kabaddi	Department of Physical Education
	Hubuuu	Akilandeswari_phyedn@avinuty.ac.in
		Ms.A.Sivasankari
		Assistant Professor
	Basketball	Department of Physical Education
	Busherburi	Sivasankari_phyedn@avinuty.ac.in
		Mrs.V.Preethi
		Assistant Professor
	Throwball	Department of Physical Education
	Imovodi	Preethi_phyedn@avinuty.ac.in
		Mrs.M.Sudha
		Assistant Professor
	Marathon	Department of Physical Education
	manut	Sudha_phyedn@avinuty.ac.in
		1 * *
		Dr.S.Malar

		Assistant Professor
	Ball Badminton	Department of Physical Education
		malarsmped@gmail.com
4.	Fitness – Aerobics & Zumba	Dr.M.Mary Glory Ponrani
		Assistant Professor
		Department of Physical Education
		Marygloryponrani_phyedn@avinuty.ac.in
5.	Personal Trainer for Fitness	Mrs.V.Preethi
		Assistant Professor
		Department of Physical Education
		Preethi_phyedn@avinuty.ac.in
6.	Walking Club	Dr.S.Malar
		Assistant Professor
		Department of Physical Education
		malarsmped@gmail.com
<i>7</i> .	Avinuty Fitness Club	Dr.R.Saravana Prabha
		Mrs.A.Sivasankari
		Sivasankari_phyedn@avinuty.ac.in
8.	Organizing and Officiating	Staff and Students of Department of Physical
	Competitions	Education
9.	Adapted Sports for differently abled	Dr.M.Mary Glory Ponrani
		Assistant Professor
		Department of Physical Education
		Marygloryponrani_phyedn@avinuty.ac.in
10.	Summer Camp	Staff and Students of Department of Physical
		Education

Special Education

S.No	Nature of Consultancy work	Beneficiaries	Amt in Rs.	Name and Designation, Field of Expertise and Contact details
1	Educational Guidance on Rehabilitation of persons with Disabilities	Educational Administrators	1000	Dr.G.Victoria Naomi, Prof. of Spl Ed & Dean, School of Education dean_education@avinut y.ac.in
	Functional Assessment of Visual Impairment	Children/Adult s with Visual Impairment	200	
	Ways to foster Universal Design for Learning	Educational administrators	1000	
	Guidance on fostering Reading	Children/stude nts	200	
	Guidance on promotion of Inclusive and Special Education	Educational Administrators	1000	
2	Functional Assessment Children with Cognitive Disabilities Mental Retardation Autism Sprectrum Disorders	Children/stude nts	200	Dr.K.Sambath Rani, Assoc. Prof. & Head, Dept of Special Education, sambathrani_spl@avinut
	Functional Vision Assessment		200	y.ac.in
	Guidance on promotion of Inclusive Education	Educational Administrators	1000	
	Functional Curriculum for the children with cognitive Disabilities	Teachers/Speci al Educators	1000	
	Counselling for Parents of Children with Disabilities	Parents	500	
3	Educational Assessment of Children with Disabilities	Children	200	Dr.V.Mrunalini, Assistant Professor(SG)
	Guidance on promotion of	Educational	1000	Dept of Special

	Special Educational Support at Higher Educational Institutions	Educational Administrators	1000	mrunalini_spl@avinuty. ac.in
	Counselling	Parents/care givers/PWD	200	
4	Educational Rehabilitation of persons with Hearing Impairment	Educational Administrators	1000	Dr.R.Shanthi, Assistant Professor(SG), Dept of Special
	Sign Language	All stakeholders	1000	Education shanthi_spl@avinuty.ac.
	Functional Assessment of Children with Disabilities	Children	200	in
5	Educational Rehabilitation of persons with Disabilities	Educational Administrators	1000	Mrs.R.Nagomi Ruth, Assistant Professor(SS),
	Guidance on promotion of Inclusive Education	Educational Administrators	1000	Dept of Special Education
	Assessment and Education of Children with Disabilities	Children	200	nagomi_spl@avinuty.ac. in
6	Education of the Children with Hearing Impairment	chidren	200	Mrs.K.Kalaivani Assistant Professor,
	Sign Language	All stakeholders	1000	Dept of Special Education,
-	Educational Assessment of Children with Disabilities	Children	200	kalaivani_spl@avinuty.a c.in
7	Guidance on Education of Children with Visual Impairment	Children	200	Dr.S.Revathi Assistant Professor, Dept of Special
	Inclusive Education	Educational Administrators	1000	Education revathi_edn@avinuty.ac
	Guidance on Community Based Rehabilitation	CBR Institutions	1000	in
	Functional vision Assessment and Education of Children	children	200	-
8	Educational Guidance on Children with • Hearing Impairment • Visual Impairment	Parents/teacher s	500	Dr.A.Divya Priya Assistant Professor, Dept of Special Education,
	Universal Design for Learning	Educational Administrators	1000	divyapriya_spl@avinuty .ac.in
	Functional Assessment and Education of Children with Disabilities	Children	200	

9	Educational guidance Children with Visual Impairment		500	Dr.M.Revathi, Assistant Professor, Dept of Special
	Facilitating Inclusive Education	Educational Administrators	1000	Education, revathi_spl.ed@avinuty.
	Remedial Intervention	children	200	ac.in
	Educational Assessment of Children with Disabilities	children	200	
10	Guidance on Education of Children with Visual Impairment		500	Mrs.B. Rajeswari, Teaching and Research Fellow,
	Guidance on Inclusive Education	Educational Administrators	1000	Dept of Special Education,
	Educational Assessment of Children with Disabilities	children	200	rajeswari_spl@avinuty.a c.in
11	Functional assessment of Children with Visual Impairment	children	200	Mrs.S.Lavanya Teaching and Research Fellow
	Assessment and Education of Children with Disabilities	children	200	Dept of Special Education lavanya_spl@avinuty.ac .in

Engineering

Consultancy	Name and Designation	Prospective industry /Concern that may require your consultancy (specific name of the industry may also be included)	Cost
Measuring the quality of water based on parameters like pH, Alkalinity, Hardness, Chloride content, Dissolved oxygen, conductivity etc,	Dr.S.Malarvizhi Associate Professor	All industries which use water for different processes Water Treatment Plans	Rs.1,250/- per water sample
The statistical analysis needed for projects	Dr.T . Poongodi Assistant Professor (SG)	Research Scholars	Rs.2000/-
Do Statistical Analysis needed for projects	Dr.D.Sumitha Associate Professor	All the research scholars	Rs.2000/-
-	Dr.V.M.Vijayalakshmi Assistant Professor Dr.J.Sri Kiruthika	-	-
Biopolymer edible coating on various fruits and vegetables for preservation	Assistant Professor Dr.A.Ayisha Begam Associate Professor	Food packaging and preservation Industry	Rs.500 per hr
-	Dr.S.Rani Assistant Professor (SS)	-	-
Blood grouping, Hb, Sugar, total protein, and lipid profile	Dr.R.Pappa Ammal Associate Professor	People who need an examination of the mentioned hematological parameters	Rs. 500/-
Designing of building interiors especially kitchen working centers as per the anthropometric measurements of the workers or homemakers. (Working Counters' heights and width, Storage -wall and base cabinets, Sink-height and depth etc.)	Dr. Rymala Mathen Chief coordinator, Entrepreneurship Development Cell	Architects, Civil engineers who plan and construct houses/ offices and Interior designers.	 Rs. 5000/ for designing alone and giving the plan (Rs. 65 to Rs.75 per sq. ft) 3% of the total cost (Designing and finishing including a site visit)
Subject Field: General English & Basic Sciences	Dr.T.Mekala Assistant Professor	Those who need to translate Course material can avail.	Rs. 10/- per page
Hands-on training – Polymer preparation	Dr.R.Vini Assistant Professor	Students and Industry	Rs.500/- per candidate (one day)

Hands-on training – Metal	Dr.A.Banu	Students and	Rs.500/- per candidate
oxide and biomaterials	Assistant Professor	Industries to whom	(one day)
preparation		material synthesis is	(* * * * * * * * * * * * * * * * * * *
		required	
Development of Unique	Dr.TKS.Lakshmi Priya	Small Scale Cottage	Rs 1.00 per package
Packages and Fabrication of	Prof. & Head / PT	Industry and Women	print
Die-Cutting Machine		Self-help group	
Fabrication of Paper Case Pen	Dr.A.Arulmozhi	Small Scale or	5 % of the machine
Making Machine and	Associate Prof./PT	Cottage Industry and	cost price
Fabrication of Four Colour		Women's Self-help	•
Color Screen Printing Machine		group	
Fabrication of Interactive	Dr.N.Alagusundari	Machine	5% of the product cost
Printed Electronics Boards for	Asst. Prof./PT	Manufacturing	_
Marketing		Industry	
Automatic discovery of	Dr.S.Sivakumari	AI and ML solutions	Rs.75,000/-
insights from high volume	Professor and Head	for Financial,	
data, protect sensitive		insurance, agriculture	
information using privacy-		and healthcare sectors	
preserving data mining, using			
machine learning algorithms			
Automatic detection of threats	Dr.P.Amudha	Software Companies	Rs.75,000/-
using swarm optimization	Professor	or any organization	
algorithms			
Web Application Development	Dr.K.Rajakumari	Digital Marketing	Rs.15,000/-
for small-scale industries	Associate Professor	Companies	
Rechargeable Transportation	Dr.D.Nithya	Travelling agencies	Rs.50,000/-
card	Assistant Professor		
Medical Chatbot for	Dr.R.Ahila	Hospital and Elderly	Rs.55,000/-
Alzheimer's Patients	Assistant Professor	Person	
Disease prediction using	Mrs.S.Shanmugapriya	Health informatics	Rs.25,000/-
Machine Learning Techniques	Assistant Professor		
Critical Care Monitoring	Ms.P.Sindhuja	Hospital & Caretaker	Rs.20,000/-
System	Assistant Professor		
Eye Motion Detection based	Ms.K.Divya	Hospitals	Rs.30,000/-
Assistive System for Paralyzed	Assistant Professor		
Patients using Back			
Propagation Networks			
Autonomous Vehicle	Mrs.K.Thamaraiselvi	Self-Driven Cars	Rs.75,000/-
Technology	Assistant Professor		
Anomaly and Intrusion	Mrs.D.Rajeswari	Banking Sector	Rs.50,000/-
Detection in Cyber Security	Assistant Professor		
Energy Efficient Coverage	Mrs.C.Janani	Medical sciences and	Rs.50,000/-
-	Assistant Professor	Environmental	
		Sciences	
Web Application Development	Ms.J.Kowsalya	All Industries	Rs.50,000/-
for all Industries	Assistant Professor		
Testing of physical, chemical,	Dr.R.Nithya	Water Resource	Testing charges of
and biological characteristics	Associate Professor	Organization, Public	each parameter is
of water and wastewater		Works Department	enclosed

	Ī	T	
Consultation for solid waste management Land Survey Consultancy Services:		Any construction industry wants to check the water quality	Rs.2000 with a report
Area measurement		Construction industry	Rs.3,000/Acre without
Level measurement		who seeks	transit charge
		outsourcing and	
		public	
1. Arriving at Mix design for	Dr.S.Shanthi	All construction	1. Mix design - Rs.
various concrete	Assistant Professor	industry which	2000
2. 2D CADD drawing for		involves planning,	2. Analysis and
building plans, and building		designing, and	design of a
elevations can be done		executing the	building - Rs
using CAD and REVIT Software		construction work.	5000
3. Analysis and designing of a		Sukra Property	3. Workability - Rs 500
building using ETABS		Developers Pvt. Ltd.	4. Mechanical
software can be dine		Developers I vt. Eta.	property of concrete -
4. Test the workability of the		Karunanidhi	Rs 1200
fresh concrete to check its		Constructions Pvt. Ltd.	5. Quality of aggregate
ease of placement			- Rs 4100
5. Test the mechanical			6. Quality of fine
properties of concrete to			aggregate- Rs 1000
check its compressive			7. Quality of cement
strength, tensile strength,			mortar - Rs 1000
and flexural strength,			8. Quality of brick,
6. Test the impact, crushing,			block - Rs 900
flakiness and elongation,			9. Quality check of
abrasion properties of			paver block - Rs 3500
coarse aggregate 7. Test the fine aggregate for			The cost for nonert
finding its properties such			The cost for report writing is Rs 1000
as specific gravity, sieve			witting is Ks 1000
analysis, bulking			
8. Test cement mortar for its			
workability and			
compressive strength			
Test the quality –the strength			
of bricks, solid blocks, and			
paver blocks	D Mai ii		GI D I
1. Collection of Site Surveyor	Dr.N.Srimathi	Construction	Charges Per day -
services, Boundary Services, Levelling	Associate Professor	development sector	Rs.5000
Services, Levening Services,			
Testing of hardened concrete	Mrs. M. Ramya Devi	Construction industry	Cost for plan
Today of naracilea concrete	Assistant Professor	Construction made y	Rs.3500/-
-	Mrs.G.Aswini	-	-
		•	

	Assistant Professor		
Device and method of an Infrared Camera to Detect Dental caries and images captured and stored	Dr.Judith Justin Professor and Head	Healthcare industry	Technology Transfer & Licensing: Rs. 2 Lakhs Cost of the device: Rs.1,000/- Charges for one test: Rs.100/-
Design and development of wireless medical devices	Dr. R. Vanithamani Professor	Healthcare industry	Cost of the device: Rs.5,000/-
Development of Biosensors using nanomaterials for clinical analysis.	Mrs. M. Nila Nandhini, Assistant Professor	Healthcare Industry	Rs. 5000/-
The computer-assisted analysis for better interpreting images has been a long-standing issue in the medical imaging field. Recent developments in machine learning, particularly in the form of deep learning, have made significant strides in image understanding by making it easier to recognize, categorize, and quantify patterns in medical images. Deep learning is quickly establishing itself as the cutting-edge foundation in this approach, achieving improved performances in a variety of medical applications. This domain introduces the principles of deep learning techniques and evaluates how well they work with picture registration, the identification of anatomical and cellular features, tissue segmentation, computer-aided disease diagnosis or prognosis, and so on.	Mrs.Shijitha R Assistant Professor	Clinical Laboratories and Scientific Research	Rs. 5,000/-
Design and development of biosensors by nanofabrication techniques.	Mrs.A.Mahalakshmi Assistant Professor	Wearable Medical Device industry	Rs. 50,000/-
Design and engineering of wearable medical sensors for facilitating at-home health monitoring	Dr. E.Smily Jeya Jothi Assistant Professor,	Wearable Medical Device industry	Rs. 5,000/-

AI-enabled speech devices Calibration of medical devices in hospitals Digital hardware system.	Mrs.S.Gowri Assistant Professor	1. Rehabilitation Engineering, Healthcare devices for the differently abled 2. Healthcare industry Semiconductor	1. Rs. 5,000/- for a speech-to-text device 2. Calibration and testing services Rs.2,500/-
Digital hardware system design using VHDL/Verilog HDL, FPGA Prototyping	Dr. B. Sargunam Dean i/c, Professor and Head	Industry	Rs. 10,000
Design, simulation and fabrication of RF components and systems	Dr. K. Annaram, Professor	Electronics, RF, IoT, DRDO and ISRO	For training and consultancy Rs 2500 to 3500 per day. Design, simulation and fabrication price will vary based on the nature of the work and design.
Continuous monitoring of real- time parameters using sensors and NFC Tags for freshness identification of packed foods	Dr. R. Sudarmani Associate Professor	Healthcare, logistics and food industries (supply chain)	Phase I: Rs. 50,000 /- Phase II: Rs. 15,000 /-
Designing hardware devices for preventing vehicle accidents using embedded systems	Dr. D. Veera Vanitha Associate Professor	Automobile manufacturing industries	Rs. 10,000
Digital System Design using Embedded System	Mrs. R. Chitra Assistant Professor (SS)	Semiconductor industry	Rs. 10,000
Computer-Aided Diagnosis of Medical Images	Mrs. K. V. Archana Assistant Professor	Medical Diagnostic Centres	Rs. 5,000 /-
Design of Schematic Circuit simulation and Printed circuit board layout using software tools (Easy EDA, KiCad EDA)	Ms. S. Priyadharshini Assistant Professor	PCB Assembly industries, Siemens	Rs. 10,000/-
Embedded hardware Design using software tools (Python, PHP, Javascript)	Mrs. R. Padma Priya Assistant Professor	Automation Industry	Rs. 10,000/-
Design, Development, and Optimization of food processing machinery and process NewProduct Development	Dr. A.Lovelin Jerald Professor and Head	MSME, Food industries, Farmers, and Entrepreneurs	Rs.50,000/-
New Product development and process development	Dr. P.HemaPrabha Associate Professor	Food Industries, farmers, and Entrepreneurs	Rs.20,000/-
Designing of food processing machinery and process optimization	Dr. A.Reni Associate Professor	Food industries and start-ups	Rs.50,000/-

2. Thermal processing of foods			
Small fabrications and	Dr. S.Ramani	Small-scale	Rs.10,000/-
composite fabrications	Assistant Professor	fabrication industries	
		and Researchers	
Machine fabrication for	Mrs. K.Pooja	Food industries,	Rs.50,000/-
agricultural uses and industrial	Assistant Professor	farmers, and	
uses		agricultural industries	
Non-Destructive quality	Ms. R.Sharmeela	Food industries and	Rs.15,000/-
evaluation of foods	Assistant Professor	quality control	
		laboratories	
Non-Invasive quality detection	Ms. B.Janani	Fruit and vegetable	Rs.15,000/-
of fruit and vegetables	Assistant Professor	industries	

S.No.	Name of the Principal Investigator/ Co Investigator, Department and Project Title	Name of the Funding agency	Year of Award and Duration	Outcome of social relevance
1	Dr. B. Nalini, Physics, Developmnt of ZnCo204 based Electochemic battery,	MINOR RESEARCH GRANT	2022, 1 yr	A constructed device with ZnCo2O4 as cathode and Lithium titanate as anode with transparency and photostimulative characteristics will be generated •The constructed device will be having a photo dependent electrochemical performance that is charging and discharging cycles will get altered due to the exposure of light. • Two publications • Pilot study for one major proposal for submitting to any of funding agency
2	Dr. K. Bagyalakshmi, , Co-PI, Dr. Kalaiarasi Dr. M. Poonkothai, Textiles and clothingExtraction of sustainable Bioactive black dye from selected bio- sources for Textile colouration,	MINOR RESEARCH GRANT	2022, 1 yr	Natural colourants with functional properties in textile fabrics maintain a pollution free environment.
3	PI - Dr. D. Kavitha CoPI Dr. M. Rajeswari,Biochemis try Biotechnology and Bioinformatics,Reve rsal of Multidrug resistance in Heliobacter pylori using Chemosensitization strategies with	MINOR RESEARCH GRANT	2022, 1 yr	The biofilm inhibition capacity of the selected natural compounds combination with antibiotics could provide a way for the quick reduction of H. pylori counts in the host. There by reducing the penetration of H. pylori into the epithelial cells of gastric mucosa and prevents the carcinogenesis

	Natural compounds targeting efflux transporters and Bioinformatics,			
4	Dr. T.K.S. Lakshmipriya, Dr N Vasugi, Dr. Karthikdeepa Dr. Alagusundari, Printing Technology, Fabricat ing a prototype of an Interactive board game to exploit the sensory skills of Toddlers,	MINOR RESEARCH GRANT	2022, 1 yr	Game board to help the toddlers to develop their sensory aspects as well for the teachers or parents to find the ability of the toddlers and helps to enhance the skillset at the right time.
5	Dr. Mahalakshmi, Librarian, Assessing Information Literacy competency of PG students and research scholars of Avinuty,	MINOR RESEARCH GRANT	2022, 1 yr	The study findings will help the students and research scholars of our Institute to locate, evaluate and use the information effectively for their academics and research work. It will also help them in lifelong learning and result in learned society.
6	Dr. A. Pankajam, Co-PI - Dr. T. Amudha, Business administration, Street vendors\'s attitude and adoption towards digitalization in coimbatore,,	MINOR RESEARCH GRANT	2022, 1 yr	empowerment of the street Vendors/Hawkers India should also adopt to the digital intervention for better results in economic development.Awareness can be created among the street vendors regarding the government schemes and make them benefitted through the digital adoption.
7	Dr N V Amudhadevi & Dr N Krishnaveni, Dr T Jayamalar, Analysis of Psychological impacts on Virtual learning environment among Higher Education students	SEED GRANT	2022, 1 yr	Creates a positive attitude towards online learning technologies and digital developments. It creates an opportunity to provide suggestions and recommendations for achieving an optimal online mode of learning during the post-COVID-19 era.

	using Machine Learning Techniques			
8	Dr V Vimala, Commerce,Adoption of Mobile banking Apps& Transaction Apps:Cyber security issues among digital customers	SEED GRANT	2022, 1 yr	Expanding the knowledge through adoption of Mobile Banking technology which provides the updated database to both banker and customers. The findings of this study will help banks and other financial institutions to develop their strategies and operations in regard to customer-oriented thinking, which will further help them to create long-term, profitable customer relationships and improve future viability.
9	Dr Ramya & Dr M Iswarya, Business Administration, Branding and Perception of Higher Education Institutions: Moderating Role of e-WOM Platforms	SEED GRANT	2022, 1 yr	Role of Students and other stakeholders in Perceptions towards HEIs Role of E-WoM in promoting HEIs Identification of right HEI for pursuing programmes
10	Dr C Karthik deepa & S S Manimozhi, K Deepa, EducationCreation of Puppets by Student teachers and its effectiveness among school students,	SEED GRANT	2022, 1 yr	Puppets, Books, and papers in Journals related to puppet making by student teachers and its effectiveness among school students. One WOrkshop organized on Puppet making
11	Dr R Shanthi & Dr Sambathrani, Special Education, Developi ng Elementary health habits among Children with special needs through Rhymes,	SEED GRANT	2022, 1 yr	Developing Testing and Intervention Tool for Elementary health habits of Children with special needs through Rhymes
12	Dr. V. Saraswathi,	SEED GRANT	2022, 1 yr	This study aims to provide

	Resource managementTransfo rmation of ecological solid waste into marketable product: A Green Approach,			insights on the development and transformation of waste into organic fertilizer to help reduce the impact to the environment.
13	Dr U Ratna, Ms Shakti Uma Maheshwari, Texiles and clothing, Design and Development of Textiles Products from Reclaimed Fibers	SEED GRANT	2022, 1 yr	To bring innovative change in textile waste management processes, products and sustainable development for the future. Using reclaimed fibres we can reduce energy consumption and waste going to landfills.
14	P Jagathambal & S Rajakumari,Perceive d Parenting style and its relationship with self esteem and resilience among First generation College students	SEED GRANT	2022, 1 yr	First Genration College Students (FGCS) will be sensitized on strategies to enhance self esteem and resilience.
15	Dr M Amutha Selvi, Chemistry,Investiga tion of Modified Mn II Complexes as potential MRI Contrast agent	SEED GRANT	2022, 1 yr	The cyclic shape prepared CA, which can bind with Mn metal and it should prevent the release of free Mn(II) and thus improve the clinical safety and higher relaxivity which is high compare to Gd-DTPA contrast agent
16	Dr V Srividhya, Computer Science, Automated Question paper generation system using Bloom's Taxonomy - to include learning outcomes	SEED GRANT	2022, 1 yr	preparing a question paper through an automated system for question paper generation makes it a lot more efficient, reliable, improved in quality, and also cut this back the time taken by instructors in setting the question papers manually.
17	Dr S Velvizhi & Dr E Nithya,Biochemistry	SEED GRANT	2022, 1 yr	Oxygen nanobubbles production was tried with 3 different shell

	Biotechnology and Bioinformatics, Asses sment of the ability of Oxygen Nanobubbles to reverse Acute Hypoxia in Rats			types such as sodium carboxymethyl cellulose, lecithin and chitosan. Chitosan and lecithin formed only layers instead of nanobubbles, whereas Sodium CarboxyMethyl Cellulose Oxygen formed nanobubbles. These nanobubbles were not effective in reversing hypoxia in isolated peripheral isolated lymphocytes.
18	Dr. V. Sasirekha (Physics) Dr D Shanmugapriya, & Dr Nethra Pingala Suthishni,Energy Efficient Intrusion Detection System for Zigbee based Wireless Sensor Networks using Machine Learning Techniques	SEED GRANT	2022, 1 yr	The understanding regarding the traffic dynamics within WSNs provide a basis for further works on network optimization and anomaly detection for WSNs. The construction of a strong framework system for detecting intrusions based on the machine learning techniques is a novel aspect of this suggested research
19	Dr Sreeja Balakrishnan, English, Culture bias and gender representation in Indian Advts and Its impact	SEED GRANT	2022, 1 yr	Helps individuals to know the level of the influence of these advertisements in their lives and identify the positive and negative influence of this aspect. The Research project is multidisciplinary in nature; it deals with the concepts of Culture, Gender, and Media with special emphasis on its impact on the contemporary society.
20	Dr B Rani & Dr. M. Kavitha, Tamil, Sanga Ilakkiyangalil Malarum Maruthuva Gunangalum	SEED GRANT	2022, 1 yr	Crete awareness on the medicinal properties of flowers as spoken about in Sangam Literature
21	Dr C Priyadharshini & Dr S Bharani, Tamil, Tamil Elakiyangalil Velan	SEED GRANT	2022, 1 yr	Introduction of the sustainable farming practices and environment friendly lifestyle spoken about in Sangam literature

	Marabu			to the present generation
22	Mrs V Ezhilarasi, Visual Communication,Artif icial Intelligence based interactive Audio lessons in Irula Dialect for the Pre Primary School Tribal Students in Coimbatore Dist	SEED GRANT	2022, 1 yr	The concept of introducing lessons in native dialect in the early stages will carry the uniqueness and legacy of their culture to the next generation preventing it from the verge of extinction.
23	Dr K Devi, FSN, Impact of Transfer of Functional and Nutritional Dairy Technologies on household food security and Nutritional status among small dairy farmers	SEED GRANT	2022, 1 yr	Improvement of nutritional status and food security of small dairy farmers through effective transfer of technology
24	Dr G Sudhamathy, Dr N Valliammal, Computer Science, Sleep recommendation System for Elderly People based on Convolutional Neural Network and Long short Memory	SEED GRANT	2022, 1 yr	An intelligent model based on Deep Learning is built in this paper to display sleep stage patterns. This model is helpful for physicians as it classifies the sleep stages faster than the manual classification, which in turn saves time and cost.
25	Dr R Saravana Prabha & S Archana Mani, A Sivasankari, Physical Education, Implementing Schematic Action plan for Fit Avinashilingam Movement- An Experiential Initiative towards Women	SEED GRANT	2022, 1 yr	The proposed schematic action plan on Physical Activity through Fit Avinashilingam Movement proposes solutions to strengthen leadership, governance, workforce capabilities, and advocacy to create a social movement to address the complex problem of physical inactivity. Thereby promote women empowerment and wellbeing.

	Empowerment and Well being			
26	Dr Nirmaladevi, Dr Sudhadevi M,Biochemistry Biotechnology and Bioinformatics, Assessment on health hazard of using mosquito repellant and creating awareness on healthy alternatives among people in and around Coimbatore City	SEED GRANT	2022, 1 yr	Existing synthetic chemical based repellent has health hazard and proven to be carcinogen. An attempt will be been made a) to assess health hazard of using mosquito repellent among people in and around Coimbatore city b) to produce herbal based incense bar possessing mosquito repellent property with the knowledge from traditional practices. Also planned to get certification for the product developed after evaluation of its efficiency, efficacy and safety
27	Dr T Radha, Dr S Meenakshi, Resource Management, Participatory Approach for sustainable Horticulture development through Smart farming in Thondamuthur Block	SEED GRANT	2022, 1 yr	Involvement of farmers' participation in all the phases of project to make them self-reliant Making the selected villages as a Smart Horticulture Technology Cluster
28	Dr R Sunitha, Ms Channa, Vimala, Bharathi, Deepthi, Textiles and clothing, Upcycling of Textile waste into value added Composite products	SEED GRANT	2022, 1 yr	Upcycling is the best strategy that brings positivity in the societal impacts. The recycling of waste reduces the prevailing waste in the environment and also this strategy reduces the production cost of the Upcycling products.
29	Dr Jansi Rani & Dr. P. Kalaivani,Resource Management,Traini ng on Artificial Jewellery Making as a Strategy for Women	SEED GRANT	2022, 1 yr	This training programme gives a chance to rural women to grow professionally. It helps the young generation to make them self-reliant which will in turn reduces the issues of unemployment and dependency. T

	Empowerment			
31	Dr Priya M & Dr M Thilagu, Human Development, Aware ness and Knowledge on Fertility among Rural and Urban Women: An AI based Interpretation Dr. V. Premala Priyadarsini, Food Service Management and Dietetics & Dr Thilagamani, FSMD, Examinning the impact of Covid 19 Pandemic on Dietary and Lifestyle behavious of Children in select schools of Coimbatore and promotions of	RITES	2022, 1 yr 2022, 1 Year	Fertility awareness and knowledge level of rural and urban women from Coimbatore would be identified to extend the research for further study. The reasons/causes of infertility may be derived from this study and people will get aware of what are the factors responsible for infertility and treatment methods. The present investigation will aid to assess the impact of COVID - 19 pandemic on dietary and life style behaviour of school children (preteens and teens) in selected schools of Coimbatore and the educating the school children on good dietary practices and desirable life habits for healthy living will foster a healthy society.
32	healthy dietary habits Dr.P.A.Raajeswari, FSN,Student- N Roshini,Upscaling Bio waste- Ground nut shell to Eco- friendly packaging	TNSCST-SPS	2021	One stop solution for Single Use Plastics because they reduce the plastic pollution and carbon footprint.
33	materials Dr.K.Devi , Food Science and Nutrition Student- M.Steffi Vergina, Self heating approach and protein enrichment in the development of ready to eat pasta	TNSCST-SPS	2021	Development of pasta with protein enrichment. Instant heating adds the convenience to the product
34	Dr.E.Nithya	TNSCST-SPS	2021	Exploring the means to tackle

	Biochemistry Biotechnology and Bioinformatics Student-Nandhini.S, Sujitaa.R, Sandhya.S,Assessing the ability of oxygen nanobubbles to reverse acute hypoxia in isolated peripheral blood lymphocytes			acute hypoxia with the technology of using oxygen nanobubbles
35	Dr.R.Saratha Professor/ Chemistry Student- U.Mithra, Study on artificial intelligence in lithium-ion battery prediction	TNSCST-SPS	2021	Multidiscipliary research focussing on exploring the possiblities of application of AI in battery fabrication addressing the needs for developing indigenous batteries.
36	Dr.S.Amsamani Dept. of Textiles and Clothing Student- Roshna. A Enhancement of handloom fabrics through selected Indian tribal art	TNSCST-SPS	2021	Enhancement of Handloom fabric production through application of Indian Tribal arts. Promotion of Indian art culture.
37	Dr.S.Thilakavathy Dept. of Food Science and Nutrition Student-G.P.Abinaya, Formulation of beta carotene and fibre rich nutritious bar using sweet potato (Ipomoea batatas) and millets	TNSCST-SPS	2021	Beta-Carotene and Fibre Rich Nutritious Bar developed using Sweet Potato and Millets was rich in Beta-Carotene and shelf stable with good nutritional profile.
38	Mrs.S. Anitha, Physics Student- C.Devasri, V.Sneka, Enhanced biological activity	TNSCST-SPS	2021	A study exploring the application of protein favonol bioconjugates. Study focussing on structure activity and metabiloic interactions of metal

	of syneristic effect of metal nanoparticles with flavanols and protein bioconjugate			nanoparticles with these conjugates.
39	Dr.Premavathy Vijayan, Dr. P Subashini, Computer Science, Core Research Grant for Artificial Intelligence	DST	2019, 2 Years	Promotion of Artificial Intelligence, Establishment of Artificial Intelligence core Research lab, Centre for Cyber Intelligence, AI startup programme for IoT based products and projects
40	Dr.(Mrs).K.Manimoz hi, Resource Management,UGC Assistance for Component 1 (Research Capacity Building and Human Resource Development) under STRIDE	UGC	2019, 3 Years	Promotion of Transdisciplinary research. Development of infrastructure for research capacity building.
41	Dr.P.Subashini, Computer Science, Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE) to support Artificial Intelligence Lab	DST	2019, 2 Years	Promotion of Artificial Intelligence, Establishment of Artificial Intelligence lab, AI club, AI for Education Lab, Centre for Machine Learning ad Intelligence, Centre for AI and Robotics
42	Dr.A Reni, Food Processing and Preservation Technology, Processing & Development of value added products from Millets for the	TNSCST (DIT)	2020, 1 Year	Provide livelihood opportunities for Rural Women with food processing techniques for production of value added millet based products

	enrichment of livelihood of rural women and farmers			
43	Dr. Sargunam Balusamy, Electronics and Communication Engineering,Modern ization and Removal of Obsolescence (MODROB)	AICTE	2019, 2 Years	1. C700-SDR with VNA Port /Transmission Configuration and Advanced Microstrip Trainer Kit were purchased for IC and Communication Laboratory 2. One day Workshop on " Analysis Using SDR with VNA Port and Advanced Microstrip Trainer"conducted on 12.10.2021 (Beneficiaries-54 ECE students and faculty) 3. Syllabus of Microwave Engineering and Optical Communication Practicals revised to include experiments on Advanced Misrostrip Trainer kit. 4. Improvement of functional efficiency of labs and computing facilities.
44	Dr.Judith Justin, Biomedical Instrumentation Engineering,Modern isation and Removal of Obsolescence (MODROB) of Biosensors and Transducers Laboratory	AICTE	2019, 2 Years	1.Calibration Equipment purchased for Biosensors and Transducers Laboratory, 2. Two day Workshop on "Calibration of Biomedical Equipment"conducted on 27th & 28th September 2021 (Beneficiaries-59 BMIE students) 3. Syllabus of Biosensors and Transducers lab revised to include experiments on Calibration of Medical Equipment.
45	Dr.Judith Justin, Biomedical Instrumentation Engineering, Development of screen printed grapheme based ECG Sensor for wearable E-Textiles applications	DST CURIE minor project	2019, 4 Months	1.Research Paper presented in 1st National Conference on Advancements in Communication and Information Technology Essentials, organized by Department of Information Technology and ICT Academy on February 15 & 16, 2019 at Dr.N.G.P. Institute of Technology, Coimbatore, and won the BEST

	(Technology Development)			PAPER AWARD. 2.ECG for 100 patients recorded with the screen printed graphene based sensor (at Kongunad Hospital, Coimbatore) towards experimental work and data was analyzed.
46	Dr.K.S.Santhy, Zoology, Integrated analysis of Gene expression and Genome-wide DNA Methylation for Uterine Leiomyoma Prediction :an Association Rule Mining Approach	DST CURIE minor project	2019, 4 Months	The study revealed a potential mechaism for the pathogenesis and development of the uterine leiomyomas which could help in personalized medicine and targeted therapy.
47	Dr.M.Rajeswari, Biochemistry Biotechnology and Bioinformatics, Structure-Activity Relationship of LasR inhibition using Machine Learning Algorithms	DST CURIE minor project	2019, 4 Months	Published a Research paper: Combined Machine Learning and pharmacophoric based Virtual Screening approches to screen for antibioticfilm inhibitors targeting LasR of <i>Pseudomonas aeruginosa</i> in Journal of Biomolecular Stucture and Dynamic (2022).
48	Dr.K.Manimegalai, Zoology, Smart Phone Image for identification of mosquito species using Artificial Neural Network	DST CURIE minor project	2019, 4 Months	The Research paper published:Detection of Anopheline Mosquito from microscopic image using Image Processing (2021).Journal of Huazhong University of Science and Technology. 6:1-8
49	Dr.N.Santhi, Biochemistry, Biotechnology and Bioinformatics, Prediction of semen quality as an outcome of environment and lifestyle habits using ANN	DST CURIE minor project	2019, 4 Months	Creating awareness on impact of lifestyle on fertility and other reproductive issues.
50	Dr.P.Subashini,	DST CURIE	2019, 4	Enable the use of AI in emotional

	Computer Science, Detection of Emotions from Physiological Signals using AI	minor project	Months	management by detecting physiological signals
51	Dr.M.Poonkothai, Zoology, Identification of algae using AI approach in textile dye removal	DST CURIE minor project	2019, 4 Months	Effective handling of textile effluents and prevention of environmental degradation and contamination with the application of AI.Possible Microalgae based remediation approaches in textile dye removal enhancement
52	Dr.M.Poonkothai & Dr.P.Subashini, Zoology & Computer Science, AI-A gadget to recognize fungi in spoiled bread	DST CURIE minor project	2019, 4 Months	Exploration on application of AI in identifying food pathogens such as fungi.
53	Dr.R.Nithya, Civil Engineering, Development of air quality modeling for Brick Kiln using Artificial Neural Network	DST CURIE minor project	2019, 4 Months	Air quality prediction modeling for particulate matter has been developed using Artificial Neural Network
54	Mrs.S.Premalatha, Civil Engineering, Optimized Lightweight Light Emitting Concrete Blocks	DST CURIE minor project	2019, 4 Months	Ecofriendly option, energy saving using natural light, adding aesthetical beauty to external structure
55	Dr.TKS.Lakshmi Priya, Mrs.N.Alagusundari, Printing Technology, Exploring AI Techniques to effectively classify and identify conductive inks for specific applications	DST CURIE minor project	2019, 4 Months	An effective AI system to find the conductive inks for the appropriate substrate to print out the required prototype.
56	Dr.E.Nithya,	DST CURIE	2019, 4	bring out the required prototype.

57	Biochemistry, Biotechnology and Bioinformatics, Predicting obstructive sleep Apnea using Artificial Intelligence Dr.P.Lalitha, Chemistry, Targeted	minor project DST CURIE minor project	Months 2019, 4 Months	AI based inexpensive screening of drugs to meet the urgent needs of
	Therapeutic Design exploiting Artificial Intelligence	mmor project	Months	society
58	Dr.N.Valliammal, Computer Science, Detection and Prevention of Cyber-Harassment against Women in Social Media Using Supervised Learning Algorithm	DST CURIE minor project	2019, 4 Months	Women's safety measure. Helping women to be aware and cautious of Cyber harassment.
59	Dr.B.Kalpana, Computer Science,Smart Home Automation System using AI	DST CURIE minor project	2019, 4 Months	Creating intelligent environment at home using AI powered smart home devices. Provides confortability at different levels. remote accessibility and monitoring of household appliances
60	Dr.S.Sumathi, Biochemistry, Biotechnology and Bioinformatics, Detection of cervical cancer using image processing and artificial neural network	DST CURIE minor project	2019, 4 Months	This approach will help us to identify cervical cancer by image processing without using any invasive methods like biopsy sampling. It might help in screening and detection of cervical cancer without human intervention
61	Dr.PA.Rajeswari, Food Science and Nutrition, Development and Characterization of	DST CURIE minor project	2019, 4 Months	Protein source for Vegans. Application of AI in development of nutritious food product.

	Vegan Egg with AI			
62	Dr. T. Angayarkanni, Biochemistry, Biotechnology and Bioinformatics, Training ANNs to study the structure -activity relationships of antidiabetic phytochemicals	DST CURIE minor project	2019, 4 Months	Exploring the use of phytochemical rich natural foods in treatment of diabetes. Application of AI in studying the structural and metabolic activities of these chemicals
63	Dr.B. Sarojini, Computer Science,Personal Healthcare Management using Chatbot	DST CURIE minor project	2019, 4 Months	To use CHATBOT in effective personal healthcare management. Helps manage lifestyle effectively and prevention of lifestyle associated diseases.
64	Dr.P.Lalitha, Chemistry, Computing Stable Structures, Properties, Energy of Configuration of selected Organo Sulphur Compounds using Computational Software for Arriving at broad spectrum Antibiotics	DST CURIE minor project	2019, 4 Months	AI based inexpensive screening of antibacterial drugs
65	Dr.S.Shanthi, Civil Engineering, Prediction of Landside Stability Model using MLP method: an AI approach	DST CURIE minor project	2019, 4 Months	
66	Dr.P.Amudha, Computer Science and Engineering,Congest ion control techniques using	DST CURIE minor project	2019, 4 Months	Research Paper tilted "Congestion Control in Wireless Sensor Network using AI Techniques – A survey" was presented in International Conference on Modern Engineering Science and

	Artificial Intelligence for Wireless Sensor Networks(Basic Research			Technology organised by Dr.Kalam Institute of Engineering Research,Ooty on 17.02.2020,ISBN 978-81-940569-3-5. The paper was published in International Journal of Innovative Technology and Exploring Engineering, in vol. 9, ISSN: 2278- 3075,pp 1607-1609,Issue5, March2020.
67	Dr.Anitha Subash, Biochemistry, Biotechnology and Bioinformatics, Using ANNs to predict the structure-activity relationships of anticancer phytochemicals	DST CURIE minor project	2019, 4 Months	
68	Dr.R.Radha, Food Service Management and Dietetics, Artificial Intelligence in prediction of calorie expenditure for Sports Persons	DST CURIE minor project	2019, 4 Months	
69	Dr.R.Radha, Food Service Management and Dietetics, Artificial Intelligence in the Prediction and Prevention of Osteoporosis	DST CURIE minor project	2019, 4 Months	Prevention of Osteoporosis and debilitatory effect thorugh early prediction using AI
70	Dr.R.Radha, Food Service Management and Dietetics, Transforming Diabetes care through Artificial Intelligence among the selected	DST CURIE minor project	2019, 4 Months	Novel AI approach in diabetes care and management through early identification and diagnosis

	subjects			
71	Dr.M.Krishnaveni, Computer Science, Detection of Malarial Parasite from Human Blood Smear Images Using Image Processing and Machine Learning	DST CURIE minor project	2019, 4 Months	Image processing and Machine learning techniques applied for detection of Malaria parasite
72	Dr.A.Shobana, Biochemistry, Biotechnology and Bioinformatics, Dimensionality reduction for DNA sequence of ESRI using Artificial Intelligence	DST CURIE minor project	2019, 4 Months	
73	Dr.Judith Justin, Biomedical Instrumentation Engineering, Lung Function monitoring device for asthma and jaundice (Technology Development)	DST CURIE minor project	2019, 4 Months	Translation of technological development in enhancing healthcare.Implementation of Machine Learning Techniques for Asthma Monitoring using IoT
74	Mrs.J.Revethi, Biomedical Instrumentation Engineering, Non- invasive Measurement of Glaucoma Disease at earlier stage using Bio-Magnetic signal from eye (Technology Development)	DST CURIE minor project	2019, 4 Months	Translation of technological development in enhancing healthcare. Early detection of Glaucoma using Bio- Magnetic signals from eye.
75	Mrs.J.Revethi, Biomedical Instrumentation	DST CURIE minor project	2019, 4 Months	Enhancement of dental care practices using Neural Network based oral disease detection.

	Engineering, Neural Network based oral disease detection using WI FI Module (Technology Development)			
76	Dr.P.Amudha, Computer Science and Engineering, Air Quality Prediction using Artificial Intelligence (Basic Research)	DST CURIE minor project	2019, 4 Months	1. Research paper tilted "Air QualityPrediction using Artificial Intelligence-A survey" was presented in International Conference on Modern Engineering Science and Technology organised by , Dr. Kalam Institute of Engineering Research, Ooty on 17.02.2020, ISBN 978-81-940569-3-5. The paper was published in International Journal of Innovative Technology and Exploring Engineering, in vol. 9, ISSN: 2278-3075, pp 1417-1420, Issue 5, March 2020.
77	Dr. K. Manimegalai, Zoology, "In silico studies and effect of allium sativum against Sri Lankan weevil myllocerusundatus (Coleoptera :Curculionidae)"	TNSCST	2019, 4 Months	To minise the impact of environmental pest Sri Lankan weevil myllocerusundatus using Allium Sativum
78	Dr.S.Amsamani , Textiles and Clothing, Eco Friendly Effluent Treatment Method Using Shrimp Waste	TNSCST	2019, 4 Months	Novel eco friendly waste management method of treating effulents with Shrimp waste.
79	Dr. V. Premala Priyadarsini, Food Service Management and Dietetics, "Nurturing holistic health among visually challenged	TNSCST	2019, 4 Months	Creating awareness on importance of holistic health among visually challenged adolescents.

	adolescent boys and girls through technology assisted intervention for inclusion"			
80	Dr. Anitha Subash, Biochemistry, Biotechnology and Bioinformatics, "An Ecofriendly approach for the synthesis of bioplastic using vegetable and fruit wastes"	TNSCST	2019, 4 Months	The bioplastic obtained was reasonably good and strong. The methods have to be futher standardized for improving the plastic
81	Ms.A.Caroline, Food Processing and Preservation Technology, Automated Fish Cutter Cum Cleaner and organic Feed Maker	TNSCST	2019, 4 Months	Finds application in Seafood processing industry.
82	Dr. Anitha Subash, Biochemistry, Biotechnology and Bioinformatics,"Utili zation of Fruit, Vegetable and Flower Wastes for Vermicomposting and Screening for Industrial Enzymes" "An Ecofriendly approach for the synthesis of bioplasic using vegetable and fruit wastes"	TNSCST	2019, 4 Months	Waste to wealth measure. Effective means for Household waste management. Develop industrial enzymes from waste products.
83	Dr.R.Vanithamani, Biomedical Instrumentation	DST CURIE minor project	2019, 4 Months	Research Paper published in International Conference on "Recent Trends in Computer

	Engineering, Bone Osteoarthritis (Tech nology Development)			Science and Information Technology" (ICRCSIT-20) organized by the Department of Computer Science and Engineering & Information Technology, St. Martin's Engineering College in Association with Computer Society of India, Hyderabad & Global Cyber Security Forum, India on 17th & 18th June, 2020.
84	Dr.S.Gandhimathi and Dr.M.Manonmani, Impact of Water Pollution on Welfare of Farm Households in Tiruppur District	Project under IMPRESS scheme of ICSSR	02 Years	Will be Published as a book or research articles in reputed journals after receiving the permission from the ICSSR
85	Dr. A. Vijayalakshmi and Dr. R. Karthiyayini, Vermicompost as soil supplement to enhance biometric yield and biochemical analysis of selected medicinal plants	In-house	2016, 4 months	To study the impact of Vermicompost application as a soil quality enhancement technique: its effects on biometric yield.
86	Dr. A. Vijaylakshmi and Dr. V. Gayathri, Growth of Vegetable crop using Vermicompost	In-house	2016, 4 months	Promotion of Environment friendly safe agricultural practices using Vermicompost
87	Dr. Nisha, M.K. and Dr. D. Leena Lavanya, Ecofriendly production and purification of tannase obtained from Aspergillus flavus	In-house	2018, 4 months	Application in food processing industries where Tannase enyme is used. Ecofiendly option.

88	Dr. Nisha, M.K., "AI based Environmental Monitoring System for Mushroom Cultivation"	DST-CURIE-AI- Phase II-Proj. 30	2021, 1 year	Development of Mushroom cultivation with better monioring of environmental parameters with application of AI
89	Dr. R. Karthiyayini, Design and Implementation of Artificial Intelligence Based Machine Learning Algorithm for Plant Herbarium Species Identification	DST Curie Phase II	2021, 1 year	Exploring the possibilities of designing effective tools with Machine learning techniques for identification of Plant Herbarium species
90	Dr. S. Amutha, Plant Monitoring System using Raspberry Pi 3 B+ Model	DST Curie Phase II	2021, 1 year	A Plant Monitoring System opens up the possibility of developing automated agricultural farming. It is an efficient method of agricultural farming as well as medicinal plant farming to solve the irrigation problem and conserve medicinal plants.
91	Dr. M. Kavitha & Dr. B. Rani ,Artificial Intelligence based Adaptive Learning tool for Tamil Grammar	DST CURIE minor project	2021, 1 year	Multidisciplinary research project exploring the possibilities of applying Al for developing effective learning tools for tamil grammar.
92	Dr.S.Uma Mageshwari, Department of Food Service Management and Dietetics, Socio Cultural Explorative Study on Ethnic Foods of Tamil Nadu	ICSSR Major Research Project	2020 - 2022 (2 years)	Ethnic foods of Tamil Nadu were identified. About 400 ethnic foods from different regions of Tamil Nadu were documented. A software was developed as a database for all the collected ethnic recipes. The developed software is user friendly and highly secure. It enable storage of any number of recipes, and also supports recipe and enlargement. Different Tamil literature were reviewed to determine the ethnic foods and food mapping was done.

93	Dr.V.Premala Priyadharsini and Dr.R.Radha, Department of FSMD,Analysis of Heavy Metal Contamination in Selected Green Leafy Vegetables	In House - Avinashilingam Institute for Home Science and Higher Education for Women	1st Dec 2015-31st Apr 2016 - 5 months	Contamination of heavy metal in greens due to agricultural practices, environmental changes pollution and use of pesticides result in the contamination pose serious health issues. The heavy metal contamination of commonly consumed greens.cultivated from three different sites of Coimbatore (agricultural field, near contaminated water beds and organic farm) was tested for Chromium, lead and Zinc using atomic absorption spectrophotometer and the reading were noted at wavelength of 425.4nm for chromium 405.4nm for lead and 213.9nm for zinc. Irrespective of the sites of cultivation all four selected greens were contaminated with heavy metals. Palak keerai purchased from Ukkadam market was highly contaminated for all the three heavy metals namely chromium (72.5ppm), zinc (87.5ppm) and lead (113.1ppm) compared to palakkeerai purchased from other two sources. Except for chromium the mint purchased from organic store was highly contaminated for zinc (23.5 ppm) and lead(18ppm).
94	Dr.R.Radha,Departme nt of FSMD,Effect of Protein Supplement on the Anthropometric and Biochemical Parameters in Selected Adults	SKM Egg Products Export (India) Limited, Erode	1st Apr 2017- 8th Apr 2018 - 1 year	The supplementation study revealed a significant increase in protein levels and hence it can be recommended for growing children, adults, athletes/sports persons expectant and lactating mothers, geriatrics also for special therapeutic purpose like trauma care, renal problem, diabetes etc
95	Dr.R.Radha,Departme nt of FSMD,Egg based snack recipes formulation	Eggs world , Namakkal	4th Nov 2019 – 4th Jan 2020- 2 months	Innovative and healthy egg based recipes were developed. The recipes were developed under all categories like starters, maincourse and desserts. Which can be suggested/consumed as high protein receipes
96	Dr.R.Radha,Dr.S.Kala iselvi,Department of FSMD and Department of BCBT,Effect of value added millet flakes on weight management and stress levels of	Department of Science and Technology – Science for Equity Empowerment and Development Division - Ref -	28th Apr 2017 – April 2020 - 3 years	4 machines were facbricated for the production of Ready to Eat millet flakes and patent was published. RTE millet flakes produced is a healthy snack .As part of the study teh value added RTE foxtail millet fales were supplemented to selected adolescent girls, which helped to maintain their body weight

	selected obese women	SEED/WN/048/ 2014		
100	Dr.R.Radha,Departme nt of FSMD,Nutritive Value of Commonly consumed breakfast and snack items	Indus Electronics India (P) Ltd, Coimbatore	April 2021 - 1 month	Calculated Natritive value of commonly consumed breakfast and snack receipes which helps to know about the nutrition facts
101	Dr.R.Radha,Departme nt of FSMD,Development of Channa Based products	Jeyyam Global Foods private Limited	11 Jul 2022- 10 Nov 2022- 4 months	In the process of developing Channa based products

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