

INSTITUTE FOR COMMUNICATIVE AND COGNITIVE NEUROSCIENCES

Thiruvananthapuram & Shoranur
Department of Health & Family Welfare
Govt of Kerala

KERALA.HEALTH

FOREWORD

The Kerala Health has identified the need to work on cognitive neurology. The successive Government have given the impetus to develop the Institute for Communicative and Cognitive Neurosciences (ICCONS). Initial efforts were taken by Dr Suresh in starting the interventions and gradually develop to the present status.

The purpose of this document is to inform all that there is one specialized institution functioning. It will open up the opportunities to collaborate with the institutions working in this field. The document gives all information of the structure, programs and the outcomes of the interventions. I am confident that this publication will serve as a valuable reference for program managers, policy makers and development sector practitioners. It will enable to take up research activities in collaboration with various institutions in Kerala as well as outside Kerala.

I take this opportunity to appreciate untiring efforts of Dr Murugan C Nair and his team. They have been working on revisiting the services and build in revenue model, forge collaboration with the DME and DHS and other institutions in the State so as to impart training to Post Graduate students, coordinate with DHS to conduct complementary field activities.

I wish all the success in their initiatives.

Dr Rajan Khobragade IAS
Addl Chief Secretary
Health and Family Welfare Department
Govt of Kerala

MESSAGE

The Institute for Communicative and Cognitive Neurosciences (ICCONS) originated from a focused school health care programme/survey aimed at the detection of developmental disabilities in children in the community. What began as a targeted initiative gradually revealed a much larger and more complex public health challenge. The increasing prevalence of neurodevelopmental and cognitive disorders underscored the urgent need for a dedicated centre for the comprehensive assessment and management.

In response to this growing need, ICCONS was established as an institution dedicated for the multidisciplinary and holistic care for people with various disabilities. The core guiding principle of the institute has been the provision of comprehensive treatment services at affordable rates, ensuring that medical care and rehabilitation services remain accessible to individuals across all socio-economic backgrounds.

When we look back, ICCONS has consistently shown its progress towards a centre of excellence in cognitive neurology, with a strong emphasis on clinical care, research, and rehabilitation over the past 28 years. The institute always upholds its role in translating scientific advancements into practical, patient-centred interventions.

ICCONS actively integrates modern technology into its diagnostic and therapeutic processes in alignment with global advancements. ICCONS is driven by a strong sense of responsibility to its patients and the community it serves. The Institute remains committed to continuous improvement in service delivery and strengthening its clinical capabilities.

Dr.Murugan C Nair M.D (Gen Med),D.M(Neurology)

Consultant Neurologist and Director i/c

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Chapter 1

ORGANISATION OVERVIEW

1.1 The Need for an Institute for Rehabilitation of Speech, Language, and Cognitive Disorders

The Institute for Communicative and Cognitive Neurosciences (ICCONS) is an autonomous, grant-in-aid institution functioning under the Department of Health and Family Welfare, Government of Kerala. The institution started under the guidance of the Society for Rehabilitation of Cognitive and Communicative Disorders (SRCCD).

The adage *“Necessity is the mother of invention”* aptly describes the origin of ICCONS. The establishment of an institute dedicated to the rehabilitation of speech, language, and cognitive disorders arose out of a pressing need to address challenges that conventional healthcare systems had overlooked.

Today, the world is undergoing rapid demographic transition. Advances in medicine, public health, education, sanitation, housing, and technology have significantly increased life expectancy and improved quality of life. Maternal and child health initiatives, immunization programmes, and awareness campaigns have reduced infant mortality and family size, particularly in regions like Kerala, which is among the foremost Indian states progressing towards Stage IV of the Demographic Transition Model (DTM).

This demographic shift has profoundly altered the health profile of societies. As infectious diseases declined, non-communicable disorders have emerged as the dominant public health challenge. These include developmental disabilities (such as autism spectrum disorder, learning disability, intellectual disability, cerebral palsy, and congenital anomalies), genetic and metabolic disorders, neurological conditions (stroke, Parkinson’s disease, dementia, motor neuron disease), as well as cancer, cardiovascular diseases & trauma-related complications.

WHO (2023) estimated 1.3 billion people experience significant disability which represents 16% of the world’s population and about 80% of persons with disabilities live in developing countries. This highlights the importance of institutions like ICCONS. The Global Burden of Disease reports that five of the ten most disabling conditions worldwide are developmental in nature, while neurological and mental disorders are steadily increasing in prevalence.

Despite these alarming statistics, disabilities affecting higher mental functions—such as learning, memory, intelligence, language, and cognition—have historically received little attention in mainstream clinical medicine, pediatrics, or neurology. However, advances in neuroimaging, molecular genetics, and computational sciences have revolutionized our understanding of these disorders, highlighting the urgent need for specialized institutions.

The plight of individuals with communicative and cognitive impairments demands multidisciplinary interventions at multiple functional levels. Yet, until ICCONS was established, there was no dedicated organization in India championing their cause.

The Society for Rehabilitation of Cognitive and Communicative Disorders (SRCCD) was formed as an autonomous Society under Government of Kerala and registered under the Travancore-Cochin Literary, Scientific and Charitable Societies Act 1955. This Society was formed with the aim to establish Institutions with a novel perspective of systematic and scientific approach to the comprehensive management, rehabilitation and prevention of a group of disabilities of cognition, language, memory and other non communicable neurological disorders that affect mankind, from children to the elderly including Autism Spectrum Disorder, Learning Disability, Intellectual Disability, Cerebral Palsy, Childhood epilepsy & related complications, behavioural disorders of children, congenital anomalies, aphasia in adults following stroke or trauma, dementia and other neuro-degenerative disorders.

The Society started functioning in Thiruvananthapuram in February 1998 and the ICCONS, Trivandrum centre was opened on 2nd October 1998. The second campus was later set up at Shoranur, Palakkad on 16th November 2000 in 4.27 acres of land donated by V. K. Amma Trust.

The institute originated from earlier research initiatives in speech, language, and cognitive disorders conducted in the early 1990s, reflecting a growing need for a specialized, multidisciplinary centre in this field.

Over the past two decades, ICCONS has evolved into a pioneering institution in the country for the comprehensive management, rehabilitation, education, and research of communicative and cognitive disorders covering children, adults, and the elderly.

The institute comprises of multiple functional units, including:

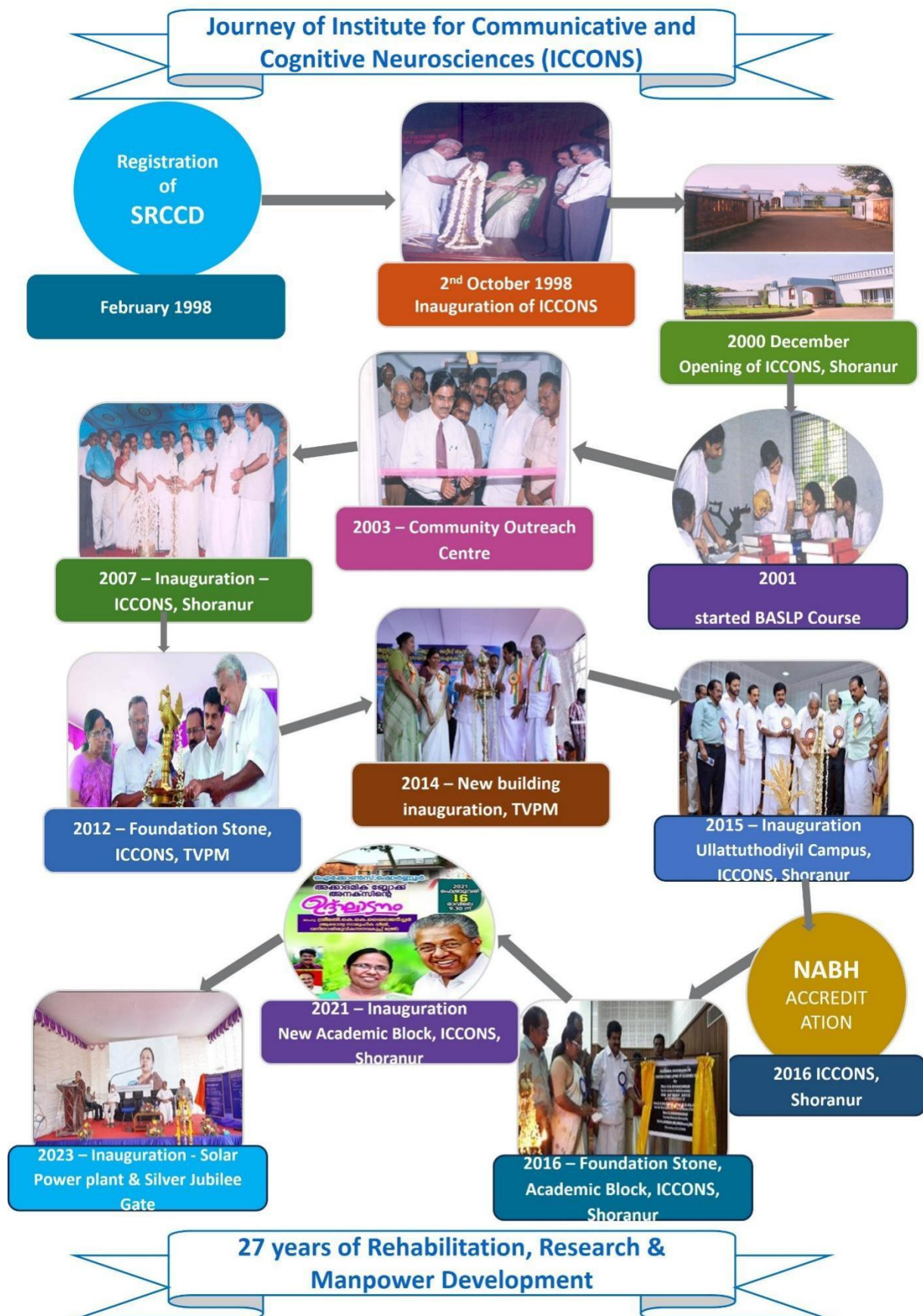
- Hospital services (inpatient and outpatient care)
- Rehabilitation wing
- College of allied health sciences
- Special education school

The institute is also conducting various researches especially in the area of cognition and communication.

1.2 Background & History

SRCCD & ICCONS – Key Milestones

- Origin (1992): Began as a Behavioral Neurology Clinic at SCTIMST, which studied children and adults with speech, language, and cognitive disorders. Rising referrals highlighted the need for specialized rehabilitation.
- Epidemiological Surveys (1997):
 - Surveyed 55,000 children (0–16 years) across Kerala.
 - About 10% were found to have developmental language disorder or learning disability
 - School-based survey showed 19% of children had communicative or cognitive disorders.
 - Results gained strong public and government attention.
- Community Outreach (1997): A centre was started at Changaramkulam PHC, offering weekend clinics and awareness programmes, involving local administration and parents.
- **Formation of SRCCD (1998):** Registered as a charitable society under the Travancore-Cochin Literary, Scientific and Charitable Societies Act 1955
 - Patrons: Ministers of Health & Education, Govt. of Kerala.
 - Objectives: Comprehensive rehabilitation, manpower training, research, and public awareness.
- Master Plan:
 - Central Institutes: Specialized centres for diagnosis, rehabilitation, vocational training, education, and advanced research.
 - Regional Institutes & Outreach Centers: Focused on patient services, rehabilitation, and community education.
 - Research priorities: Various Neurodevelopmental disorders like Autism Spectrum disorder, ADHD, Learning disability, Intellectual disability etc, dementia, post stroke aphasia, genetic & metabolic disorders.
- **Establishment of ICCONS:** On 2nd october 1998, the Institutions under SRCCD were named as Institute for Communicative and Cognitive Neurosciences (ICCONS), designed to deliver multidisciplinary rehabilitation, training, and research in communicative and cognitive disorders.



Pic 1- ICCONS' Timeline

1.3 Vision, Mission, Objectives

Vision

- Providing compassionate, ethical, and accessible quality healthcare that exceeds the needs and expectations of patients and their families.
- Conducting research to develop novel strategies for the early detection, prevention, and management of medical conditions.
- Creating a positive work environment that motivates and encourages commitment among staff.
- Promoting leadership in education and communication to improve public health.
- Collaborating with national and international scientific communities engaged in similar missions.

Mission

- To provide unique and quality healthcare to developmental and acquired cognitive and communicative disorders as well as other non-communicable neurological disorders.
- To develop new services, technologies and remedial measures through research and development and carry out assigned programs and missions that would demonstrate a model for all developed and developing nations.

Objectives

- To promote and organize research activities in various aspects of cognitive and communicative disorders.
- To develop and implement rehabilitation programmes and vocational training for individuals with cognitive and communicative disorders.
- To design and conduct educational programmes and vocational training for children with disorders leading to cognitive and communication disabilities.
- To promote public awareness through seminars, symposia, and publications.
- To train an adequate number of speech pathologists and other rehabilitation professionals.
- To provide leadership in comprehensive analysis and recommendations on current and emerging issues in this field, and to engage in dialogue and information exchange with national and international groups.

- To collaborate with other institutions, agencies, and societies working in this field in pursuit of shared goals.

1.4 ICCONS' Key Focus Areas

ICCONS provides **comprehensive clinical, academic, and community-based services** for individuals with cognitive, communicative, and neurological disorders across all age groups.

i. Clinical Services

- Inpatient & Outpatient Care and causality services
- Neurology Services: IP and OP services giving special emphasis on various disorders with cognitive and communicative abnormalities. Neurodevelopmental disorders like ASD, Learning disability, Intellectual disability, ADHD, adults with post-stroke and post-traumatic aphasia and locomotor disabilities and various neurodegenerative disorders are also given utmost importance.
- Both centres are equipped with Neuroelectrophysiology labs with facilities to do EEG, V.EEG, NCS, VEP, BERA etc.

Therapeutic Interventions:

- Speech and language therapy
- Physiotherapy
- Behavioral training and psychological counselling
- Linguistic Training
- Special education and remedial teaching

Subsidized Care: ICCONS upholds a strong commitment to equity and accessibility in its service delivery. In line with its public mandate, most of the patients are provided treatment at substantially subsidized rates, ensuring that financial limitations do not hinder access to specialized neurological and developmental care.

ii. Academic & Training

Degree programme: ICCONS is conducting the BASLP course (Bachelor in Audiology and Speech Language Pathology) recognized by RCI and affiliated to KUHS.

- Internship/observership program for students in genetics, ASLP, linguistics, psychology, physiotherapy, and special education.
- Skill development program on Molecular Genetics Techniques and Bioinformatics in collaboration with Kerala Knowledge Economy Mission (KKEM)

- Workshops, seminars, and awareness programmes for teachers, doctors, and caregivers.

iii. Research & Development

- Advanced Neurogenetic and Biochemistry Laboratories for molecular, metabolic, and neuroendocrine studies.
- Research on speech, language, cognition, neurology, and rehabilitation sciences.
- Publications, paper presentations, and collaborations with national and international institutions.

iv. Community Outreach

- Screening camps in schools and rural areas.
- Awareness programmes for parents, teachers, and communities.

v. Special Education & Rehabilitation

- **Special Schools:** Tailored education for children with autism, intellectual disability, severe learning difficulties, and behavioral disorders.
- **Vocational Training:** Preparing adolescents for independent living and employment.
- **Remedial Teaching:** Academic support for school-going children with learning challenges.

Patient care services reach out to all sections of the society.

The registered cases at ICCONS, Thiruvananthapuram and ICCONS, Shoranur are shown below:

Since its inception in 1998, ICCONS Thiruvananthapuram has registered 15,150 cases up to 2025. ICCONS Shoranur, established in 2000, has recorded 20,780 cases. Together, the two centers have managed nearly 36,000 registered cases — a remarkable milestone that underscores ICCONS's pioneering role in cognitive and communicative neuroscience.

Cumulative case registrations across ICCONS centres (1998–2025)

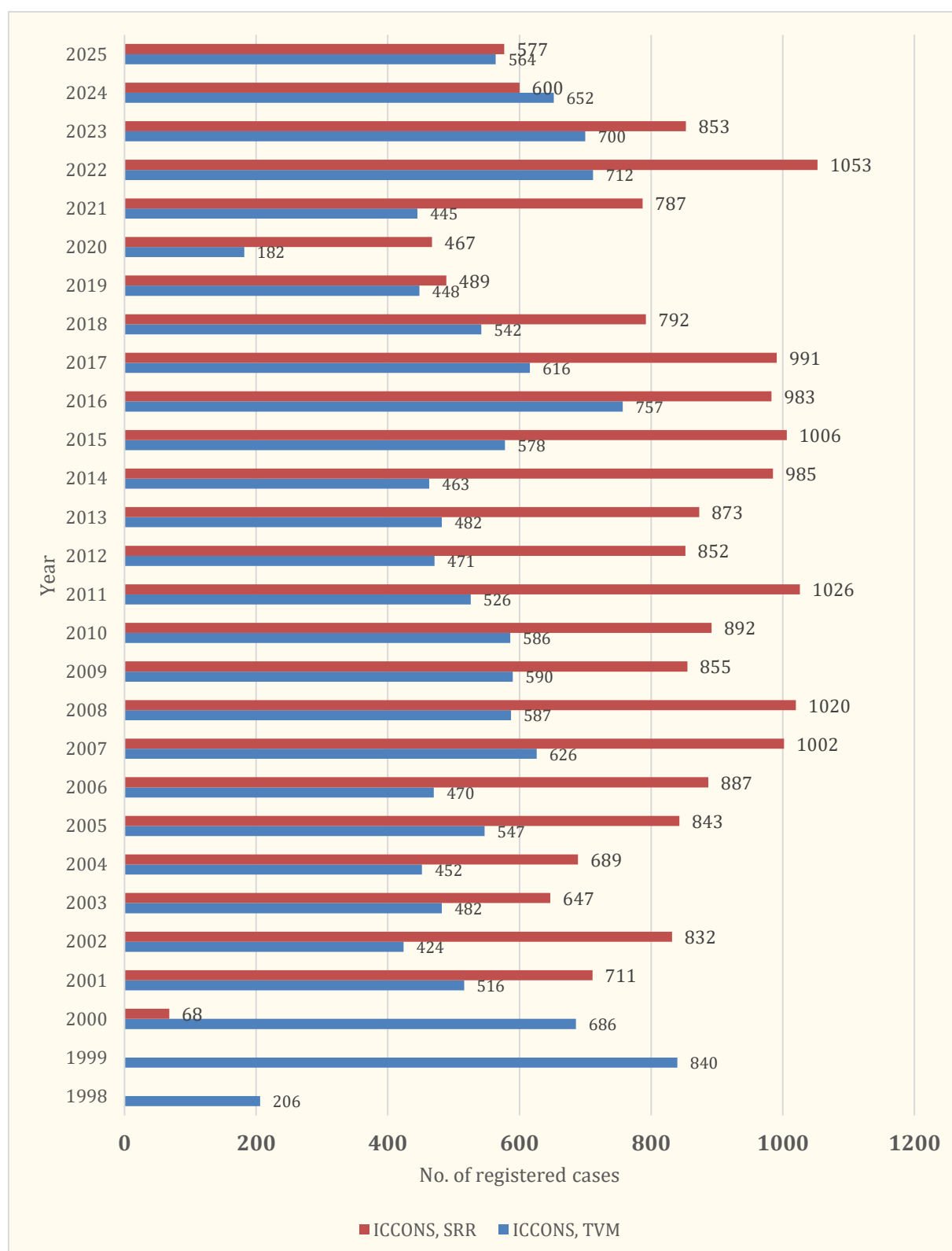


Chart1 - Cumulative case registrations across ICCONS centres (1998–2025)

Chapter 2

Governance and Organizational Structure

2.1 Functioning of governance:

ICCONS functions under the direct control of Health & Family Welfare Dept, Government of Kerala for the treatment and rehabilitation of non-communicable neurological disorders with the support of Govt. grants. As per the Memorandum of Association, SRCCD is controlled by a Governing Body headed by the Minister for Health & Family Welfare, Govt. of Kerala; decisions on administrative matters are taken by the Executive Committee headed by the Addl. Chief Secretary, Health & Family Welfare Department. The director of the institute is the Executive Head in day-to-day administrative matters.

2.2 *Organizational structure* of the Society is shown below:



Flowchart 1- Organizational Structure

The Governing Body of the Society was reconstituted as per G.O. (Rt) No. 2184/2019/H&FWD dated 05.09.2019.

2.3 Governing Body

Sl. No.	Designation/ position holding	GB position
1.	Hon'ble Minister for Health and Family Welfare	Chairman
2.	Hon'ble Minister for Social Justice	Co-Chairman
3	Director, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST)	Vice Chairman
4.	Addl. Chief Secretary, Health & Family Welfare Dept.	Co- Vice Chairman
5.	Principal Secretary, General Education Dept.	Member
6.	Addl. Chief Secretary, Finance Dept.	Member
7.	Special Secretary, Social Justice Dept.	Member
8.	State Mission Director, NHM	Member
9.	Director of Public Instruction	Member
10.	Director of Health Services	Member
11.	Director of Medical Education	Member
12.	Director of Social Justice	Member
13.	Head of the Dept. of Neurology, SCTIMST, Trivandrum	Member
14.	Managing Director, Kerala State Handicapped Persons Welfare Corporation	Member
15.	The Mayor, Trivandrum Corporation	Member
16.	The Municipal Chairperson, Shoranur	Member
17.	Dr.V Ramankutty, Former HOD, Achutha Menon Centre, SCTIMST	Member
18.	Sri.V N Jithendran IAS (Retd), Former Director, Social Justice Dept.	Member
19.	Dr. V Remakumary, CMO (Retd), ISM Dept.	Member
20.	Director, ICCONS	Member Secretary & Convener

Table1 : Governing Body of ICCONS

2.4 Executive Committee

Sl. No.	Designation/ position holding	GB position
1.	Addl. Chief Secretary, Health & Family Welfare Dept.	Chairman
2.	Principal Secretary, Social Justice Dept.	Co-Chairman
3.	Principal Secretary, General Education Dept.	Member
4.	State Mission Director, NHM	Member
5.	Director of Public Instruction	Member
6.	Director of Social Justice	Member
7.	Director of Health Services	Member
8.	Director of Medical Education	Member
9.	Director, ICCONS	Member Secretary & Convenor

Table2 : Executive Committee of ICCONS

Chapter 3

HOSPITAL SERVICES

Institute for Communicative and Cognitive Neurosciences (ICCONS) is dedicated to comprehensive multidisciplinary management, rehabilitation, and research in cognitive and communicative disorders across all age groups.

Clinical care and rehabilitation activities are overseen by the Director, with treatment responsibilities managed by the Medical Superintendent and respective Heads of Departments. A highly qualified multidisciplinary team—including neurologist, pediatrician, speech-language pathologists, audiologists, clinical psychologists, linguists, physiotherapists, and special educators—provides integrated patient care.

ICCONS operates inpatient and outpatient facilities at its Shoranur campus, while Thiruvananthapuram centre provides outpatient care. The Shoranur centre houses a 50-bed inpatient facility, comprising of male ward, female ward and stroke rehabilitation wards.

Notably, ICCONS has pioneered innovative approaches such as operant conditioning and non-verbal behavioral training for children and adolescents with autism and behavioral disorders.

Outpatient services include Neurology OP alongside specialized interventions such as:

- Speech-language assessment and therapy
- Behavior therapy
- Physiotherapy
- Linguistic Training
- Genetic counseling
- Educational counseling
- Learning disability (LD) training classes
- Family counseling and support

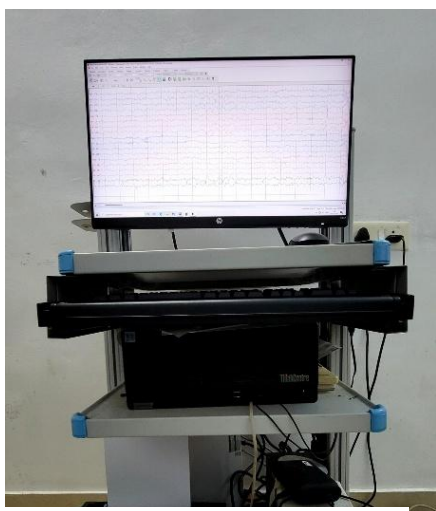
3.1 Departments & Activities

i. Department of Neurology

ICCONS has a Neurology Department with an established neuro electrophysiology lab at both centres.

Various neurological disorders from children to adults are dealt with giving importance to cognitive and communicative disorders. Children with various neurodevelopmental disorders like Autism Spectrum Disorder, ADHD, Learning disability, Intellectual disability, cerebral palsy and children with epilepsy constitute a large number of our patients. Treatment of adult patients with post stroke and post traumatic syndrome- aphasia and locomotor disabilities, various neurodegenerative conditions like dementia and Parkinsons disease etc. are given special emphasis.

The Neuro electro physiology lab has facility for doing EEG, NCS and evoked potentials like VEP & BERA



Pic 2- Nicolet v32 EEG System



Pic3- Natus UltraPro® S100 NCS/EP Electrodiagnostic System

Recording of VEP



Pic 4- Recording VEP



Many research projects are currently underway in the field of cognitive neurology. Outreach camps are also conducted to screen and identify children with various neurodevelopmental conditions.

ii. Department of Audiology and Speech Language Pathology

The Department of ASLP at ICCONS is a core clinical and academic division committed to the assessment, diagnosis, and rehabilitation of individuals with speech, language, and communication disorders across all age groups.

Key Functions

Clinical Services

- Screening and evaluation of speech & language disorders.
- Individual and group therapy sessions for children and adults
- Specialized interventions for Children and adults with communication disorders
- Audiology evaluation and Hearing aid trial.

Academic & Training

- Conducts the BASLP programme, affiliated to KUHS and recognized by RCI in ICCONS, Shoranur
- Provides internship and clinical training for speech-language pathology students
- Organizes workshops and short-term courses for teachers, doctors, and caregivers to promote awareness and early intervention

Research & Development

- Engages in research on speech-language pathology, linguistics, and cognitive communication

Community Outreach

- Conducts screening camps and awareness programmes in schools and rural communities

Available Facilities

i. Pure Tone Audiometry (PTA)

Assesses hearing thresholds across different frequencies to determine the degree and type of hearing loss.



Pic 5- Pure Tone Audiometer

ii. Immittance Audiometry



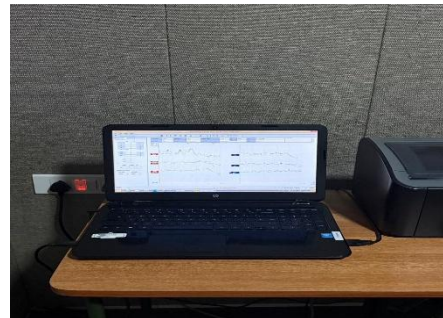
Pic 6 - Immittance Audiometer

Evaluates middle ear function by measuring tympanic membrane movement and acoustic reflexes.

iii. Auditory evoked potential: The Eclipse 15 AEP instrument includes Brainstem Evoked Response Audiometry, Oto Acoustic Emission test, Auditory Steady-State Response (ASSR), Vestibular Evoked Myogenic Potentials (VEMP)

Brainstem Evoked Response Audiometry

(BERA): Measures electrical activity in the auditory nerve and brainstem in response to sound stimuli.

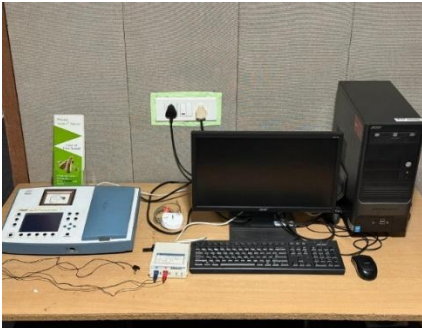


Pic 7- BERA

Oto Acoustic Emission Test: Assesses outer hair cell function in the cochlea by recording sound emissions generated in response to stimuli. The test is used for newborn hearing screening and early detection of cochlear hearing loss.

Auditory Steady-State Response (ASSR): Provides frequency-specific, objective estimation of hearing thresholds using continuous auditory stimuli and analyses responses to determine hearing levels, especially in difficult-to-test populations.

Vestibular Evoked Myogenic Potentials (VEMP): Evaluates vestibular (balance) function by recording muscle responses to auditory stimuli and interprets responses to assess saccular and inferior vestibular nerve integrity.



Pic 8 Hearing aid analyser

V.Hearing Aid Trial and Fitting:

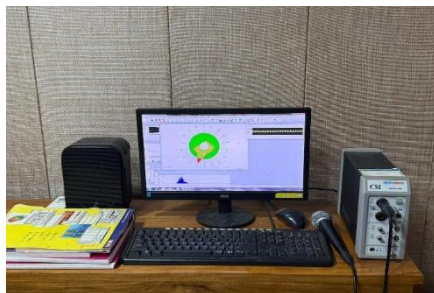
Involves selecting, programming, and adjusting hearing aids based on the patient's hearing profile.



Pic 9- Spirometer(portable)

VI.Spirometer : Measures lung function, including airflow and volume, which are essential for speech breathing and voice production. It is used to assess respiratory support and plan therapy for voice and fluency disorders.

iv. Computerized Speech Lab (CSL) – Multi-Dimensional Voice Program (MDVP):



Pic 10- CSL-MDVP

Analyses acoustic properties of voice. Used to record and evaluate voice samples to diagnose and monitor voice disorders.

V.Dr. Speech Software:

Dr. Speech is a specialized clinical software suite used at ICCONS for speech-language and voice assessment, therapy, and training. It supports diagnosis, rehabilitation, and documentation across articulation, phonology, voice, emotion, social skills, and cognitive communication.



Pic 11- Dr. Speech

The department conducts regular neonatal hearing screening programs in the nearby hospitals ensuring early detection of hearing impairment and timely intervention.

iii. Department of Clinical Psychology

The Department of Clinical Psychology at ICCONS plays a central role in the assessment, diagnosis, and intervention of psychological, emotional, and behavioural difficulties associated with cognitive and communicative disorders.

Key Functions

Clinical Services:

- Psychological evaluation of children, adolescents, adults, and elderly patients.
- Intervention programmes for developmental, acquired, and neurodegenerative conditions.
- Therapy for emotional, behavioural, and adjustment problems linked to communication and cognitive deficits.
- Counseling for families and caregivers to support rehabilitation and coping.

Specialized Programmes:

- Early intervention for children with autism, learning disabilities, and intellectual disability.
- Cognitive-behavioural therapy for post-stroke patients, dementia, and traumatic brain injury.
- Group therapy, individual therapy, and online therapy sessions to ensure accessibility

Academic & Training:

- Provides clinical training for psychology students and professionals.
- Conducts workshops and awareness programmes for teachers, doctors, and caregivers.

Research & Development:

- Engages in applied research on cognitive rehabilitation, behavioral therapy, and neuropsychological assessment.

iv. Department of Linguistics

The Department of Linguistics at ICCONS is dedicated to the scientific study of language and its application in the diagnosis, treatment, and rehabilitation of communicative and cognitive disorders. It bridges theory and practice, ensuring that linguistic insights directly benefit patients and learners.

Key Functions

Clinical Role:

- Supports assessment and therapy for children with language disorders.
- Provides linguistic analysis for conditions such as developmental language disorder, autism spectrum disorder, and learning disabilities.
- Collaborates with speech-language pathologists and psychologists to design effective therapy strategies.

Academic & Training:

- Offers teaching and training in linguistics for BASLP students.
- Develops regionally relevant tools and therapy materials.

Community Outreach:

- Participates in awareness programmes and screening camps.
- Helps to design language-based educational strategies for children with learning difficulties.

v. Department of Physiotherapy

The Department of Physiotherapy at ICCONS is dedicated to the assessment, treatment, and rehabilitation of individuals with neurological, developmental, and cognitive disorders. It plays a vital role in restoring mobility, function, and independence across age groups.

Key Functions

Clinical Services:

- Advanced physiotherapeutic assessments tailored to patient needs.
- Development and administration of personalized treatment plans.
- Rehabilitation for conditions such as stroke, cerebral palsy, neuromuscular disorders, autism spectrum disorder, dementia, and developmental disabilities.

Therapeutic Approaches:

- Evidence-based practice using diverse modalities (manual therapy, electrotherapy, exercise therapy).
- Multidisciplinary collaboration with neurologists, psychologists, speech language pathologists, and special educators.
- Regular evaluation and modification of treatment programmes to ensure optimal outcomes.

Academic & Training:

- Provides clinical training for physiotherapy students and professionals.
- Promotes awareness among teachers, doctors, and caregivers about the role of physiotherapy in disability management.

Research & Development:

- Engages in studies on neurorehabilitation, motor recovery, and functional outcomes.
- Develops innovative intervention strategies for cognitive and communicative disorders.

vi. Special Education & Special School

ICCONS has special schools for the education of children with special needs. This was established in 1999 in ICCONS, Thiruvananthapuram and 2002 in ICCONS, Shoranur. It aims to help the children to be as independent as possible, so that they can integrate into the mainstream society.

Many Children with various disabilities are attending classes on a regular basis while some children are coming for special education sessions only. Every new student is evaluated by a team of specialists including Neurologist, Pediatrician, Speech Therapist, Psychologists, Physiotherapist and Special Educator. Speech therapy, psychotherapy, and physiotherapy are provided to the students regularly.

Teaching procedure involves concept formation using Montessori equipment and modeling, explaining and demonstration through suitable teaching aids such as charts and pictures. The students are encouraged to learn through trial and error, which boosts their creative skills. The methods are tailored to suit the type and degree of disability of each child. Children are sometimes taken on outdoor trips, during which special care is taken to ensure their safety and comfort. The school maintains a close rapport with parents.

Key Functions**Special School Services:**

- Tailored education for children with autism spectrum disorder, learning disability, intellectual disability, congenital anomalies, and behavioral disorders.

- Focus on foundational skills such as communication, social interaction, eye– hand coordination, and daily living skills.
- Academic support in reading, writing, and arithmetic for children capable of progressing toward mainstream integration.

Remedial Teaching:

- For school-going children requiring additional support to strengthen academic performance.
- Ensures continuity of learning and bridges gaps in mainstream education.

Vocational Training:

- Prepares older children and adolescents for independent living and employment opportunities.
- Includes skill-building in crafts, functional academics, and social adaptation.

Community Outreach:

- Awareness programmes for parents, teachers, and caregivers.
- Involved in training programs for resource teachers to promote early identification and intervention.

vii. Department of Genetics

The Department of Genetics at ICCONS is a specialized unit focusing on the diagnosis, research, and management of genetic and metabolic disorders that affect cognition, communication, and neurological development.

Key Functions

- **Laboratory Facilities:**

- 3500 Dx Genetic Analyzer
- RT-PCR
- PCR
- Gel documentation system

- **Research & Development:**

The department carries out several extramural research projects funded by the KSCSTE, ICMR, SERB and DST-CSRI, and intramural research projects. The research projects are aimed at

- Unravelling the molecular mechanisms involved in cognitive processing and perception

- Understanding the genetic underpinnings of complex neurobiological mechanisms involved in basic cognitive functions by integrating current cutting-edge research across multiple disciplines
- Early detection of cognitive and communicative disorders
- Developing novel intervention strategies for cognitive disorders
- **Academic & Training:**
 - Conduct short-term and long-term skill development programs, funded by Kerala Knowledge Economy Mission (KKEM)
 - Conduct internship program funded by Science and Engineering Research Board (SERB), for M.Sc. (Biotechnology/ Biochemistry/ Lifesciences) students.
 - Undertake projects for M.Sc. students.

3.2 Laboratory and Pharmacy Services

Biochemistry LAB

The Biochemistry lab at ICCONS provides Routine blood and urine tests, biochemical tests, metabolic assay, electrolyte assay & endocrine assay.

Key Functions

Clinical Diagnostics:

- Routine and specialized biochemical investigations for patients with cognitive and communicative disorders.
- Screening and monitoring of metabolic and neuroendocrine abnormalities.

Laboratory Facilities: -

- | | |
|-----------------------------|------------------------------|
| ○ Semi Auto Analyser | ○ Mini-Vidas immune analyser |
| ○ Sodium Potassium Analyser | ○ Immulite analyser |
| ○ Haematology analyser H560 | |

Pharmacy

ICCONS has a well-maintained pharmacy. Drugs are dispensed by a registered pharmacist.

3.3 Other Diagnostic services

CT Scanner

- Philips MX 16 Slice CT Scanner: The MX 16-slice is a 16-slice system suited to routine CT, CT angiography, and pulmonary studies



Pic 12- CT Scanner

- Digital X-Ray & Allengers Mobile X-Ray System



Pic 13-Digital X-Ray



Pic 14- Portable X-Ray

3.4 Hospital Infrastructure

ICCONS, Thiruvananthapuram is located at Pulayanarkotta. Govt. allotted 3 acres of land to the institution on lease adjacent to the Chest Diseases Hospital, Pulayanarkotta, Thiruvananthapuram for the construction of hospital and rehabilitation centre as per GO (Ms) No.518/2010/RD dated 21-12-2010, and allotted a grant amounting to Rs. 2.60 crores under plan budget for the construction of building complex.



Main building



Special School

With the plan funds provided

by the Govt, a building complex was constructed with two buildings- one for hospital with an area of 12,000 sq ft, and the other for special school with an area of 5,000 sq ft. Later, a 4,000 sq. ft. first-floor extension was added to the hospital building.

ICCONS, Shoranur is located at Kavalappara, Shoranur. The V. K. Amma Trust at Shoranur had donated 4.27 acres of land to construct the hospital complex. With the financial support of Kerala Financial Corporation and Govt. of Kerala, the hospital complex measuring 65035 sq.

feet was completed in 2000. Later, at Ullattilthodi, which is about 200 m from the main campus, a special school of 5961 sq feet ,two ladies' hostels (8561 sq. feet), and a canteen complex 3364 .sq feet was constructed in 1.62 acres of land. The construction of the academic block (of total area of 36000 sq feet) was completed in 2021.



Main building



Academic block



Special School



Ladies' hostel



Cafeteria

Pic 16-ICCONS, Shoranur

3.5 Human Resources

Human resources recruited for the management of various activities fall in three major categories.

- Regular Staff: Staff members who were regularized by Govt. in March, 2014
- Contract staff: Majority of the employees belong to this category. Consolidated salary is being paid to the contract staff.
- Daily Wages Staff.
- The institute is also supported by personnel working on deputation.

Chapter 4

Academics and Research

4.1 Academic Programme- BASLP

ICCONS, Shoranur offers the graduate course, Bachelor in Audiology and Speech language Pathology, aimed at developing skilled professionals in the field. The program is affiliated to the Kerala University of Health Sciences (KUHS) and is recognised by the Rehabilitation Council of India.

Bachelor of Audiology and Speech-Language Pathology (BASLP)

- Conducted at ICCONS since 2001.
- Curriculum: 3 years of classroom instruction with equal emphasis on theory and clinical practicum, followed by a 10 months internship at institutions across India.
- Intake: 20 students annually.
- Admissions: Managed by the LBS Centre for Science and Technology.
- Academic system: Semester scheme.
- Degree awarded upon successful completion of coursework and internship.

Academic Infrastructure



Pic 17- Academic Block, ICCONS, Shoranur

Academic activities are conducted in the Academic Block, spanning 9,678.64 m², equipped with:

- Classrooms
 - Audiology Laboratory
 - Speech Science Laboratory
 - Recording Room
 - Electrophysiology Laboratory
 - Hearing Aid Repair Laboratory
-
- Practical Laboratory
 - Speech Therapy Rooms
 - Ear Mold lab

Committees for Institutional Governance

The smooth functioning of academic and student activities is ensured through committees chaired by the Director of ICCONS:

- College Council
- Academic Monitoring Cell
- Institutional Innovation Cell
- Student's Union
- Student Support and Guidance Cell
- Grievance Redressal Committee
- Anti-Ragging Committee and Anti-Ragging Club
- PTA Executive Committee
- *"Sradha and Nerkkoottam"* initiative against drug abuse

Hostel

Well-furnished and well-maintained hostel accommodation is available for female students, ensuring a safe, comfortable, and supportive living environment.



Pic 18- Hostel, ICCONS, Shoranur

Library

The library facility at ICCONS is designed to support both academic and research needs of



Pic 19- Library, ICCONS, Shoranur



Pic 20- Library, ICCONS, Shoranur

faculty, students, and professionals. It provides a calm and resourceful environment for study, collaboration, and knowledge exchange. The library is spread over an area of 2600 sq.ft with a quiet reading environment. Digital library services are also available for the access of E-books and E-journals to the faculties and students.

It houses an extensive collection of textbooks, reference materials, national and international journals, and digital resources related to neurology and other medical subjects, speech-language pathology, audiology, psychology, special education, rehabilitation sciences and statistics and research methods.

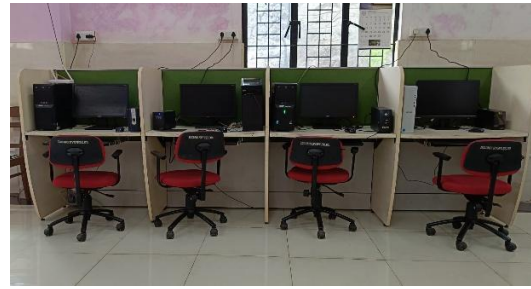
Key Features

- Collections:
 - >1,200 books at ICCONS, Shoranur
 - ~600 books at ICCONS, Thiruvananthapuram
- Additional Resources:
 - Journals, magazines, periodicals, manuals, and dissertations.
 - Access to specialized reference materials for clinical and research purposes.



Pic 21- Library, ICCONS, Shoranur

- Digital & Technical Support:
 - A computer lab with high-speed internet to facilitate online research, data analysis, and academic projects.



Pic 22- Computer Lab, ICCONS, Shoranur

4.2 Training Programmes

i. Internship/Observership Programmes

Internship and training opportunities are offered across several disciplines, including Clinical and Rehabilitation Psychology, Speech and Language Pathology, Genetics, Physiotherapy, Special Education, and Clinical Linguistics.

Students currently pursuing postgraduate studies at various recognized universities are eligible to undertake internships or training. Those who have already completed their postgraduate degree from a recognized institution and wish to gain further knowledge and skills in the field of neurodevelopmental disorders may join as observers.

ii. Skill Development Programmes

The Institute for Communicative and Cognitive Neurosciences (ICCONS), in collaboration with the Kerala Knowledge Economy Mission (KKEM), conducts specialized Skill Development Programs designed to build expertise in cutting-edge areas of science and healthcare. These programs focus on advanced training in Molecular Genetics Techniques and Bioinformatics, equipping participants with practical skills and research-oriented knowledge relevant to neurodevelopmental disorders and allied fields.

The initiative supports both short-term modules, typically spanning 30 days, and long-term programs lasting 2–6 months, thereby catering to diverse academic and professional needs. By partnering with KKEM, ICCONS aligns its training with Kerala's vision of fostering a robust knowledge economy, ensuring that students and professionals gain competencies that enhance employability, innovation, and multidisciplinary collaboration.

iii. VRITIKA Training and Skill Internship Program



Pic 23- Training Program

The Department of Neurogenetics, ICCONS, Shoranur, had hosted the VRITIKA Training and Skill Internship Program, funded by the Science and Engineering Research Board (SERB). The program was conducted in-person at ICCONS, Shoranur, and was designed to provide postgraduate students and young researchers with hands-on exposure to advanced molecular and bioinformatics techniques in the emerging field of

Neuroepigenetics.

All participants were given hands-on training in both wet-lab experiments and bioinformatics workflows.

iv. CME & CRE Programs

At ICCONS, Continuing Medical Education (CME) Programs are organized to strengthen professional expertise in communicative and cognitive neuroscience. These programs are tailored for medical practitioners, rehabilitation specialists, and researchers who wish to stay updated with the latest advances in clinical practice and scientific research.

ICCONS used to conduct RCI approved Continuing Rehabilitation Education initiatives designed to upgrade the knowledge and skills of rehabilitation professionals working in communicative and cognitive neuroscience. These programmes ensure that practitioners remain updated with the latest advances in disability management, therapy, and special education.

4.3 Research Programmes

ICCONS' research portfolio, as detailed in the annexure (**Annexure II**), reflects a strong multidisciplinary focus on neuroscience, genetics, rehabilitation, and integrative medicine. Ongoing projects include the study on the neurophysiological effects of meditation among monks and healthy controls at Kumbha Mela 2025, under the aegis of Ministry of Ayush.

Completed projects span diverse areas: adaptation of the ICF-CY tool in Malayalam for cognitive disability quantification, studies on neurocognitive impairment in prostate cancer patients, innovative therapy approaches using magical sciences and arts, genetic and epigenetic investigations in epilepsy, autism, spinal muscular atrophy, and language impairments, as well as community-based interventions for developmental disorders. Together, these annexure-listed projects highlight ICCONS' commitment to advancing scientific knowledge and developing holistic, evidence-based strategies for prevention, treatment, and rehabilitation of various neurological disorders particularly with cognitive impairment.

4.4 Details of Scientific Articles Published

ICCONS has an extensive record of scientific publications, as outlined in the annexure (**Annexure III**), covering pediatric neurology, neurogenetics, cognitive neuroscience, rehabilitation, and integrative medicine. Key contributions include tool validation in disability assessment, genetic and epigenetic studies on various developmental disorders. Clinical research has addressed epilepsy outcomes, antiseizure medication exposure during pregnancy, West syndrome, MECP2 mutations in Rett syndrome and drug-resistant childhood epilepsies. Collectively, these publications demonstrate ICCONS' multidisciplinary approach in the understanding and management of communicative and cognitive disorders.

Chapter 5.

Key Achievements

Since its inception, ICCONS has steadily grown into a pioneering institution in cognitive and communicative sciences. Beginning with the registration of SRCCD in February 1998 and the inauguration of ICCONS on 2nd October 1998, the institute expanded with the opening of its Shoranur campus in December 2000 and the launch of the BASLP course in 2001. The establishment of a Community Outreach Centre in 2003 marked its commitment to extending services beyond campus. Major infrastructural milestones include the inauguration of ICCONS Shoranur in 2007, the foundation stone of ICCONS Thiruvananthapuram in 2012, and the new building inauguration there in 2014. The Ullattuthodiyil campus at Shoranur was inaugurated in 2015, followed by NABH accreditation in 2016, underscoring its clinical excellence. The same year also saw the laying down of the foundation stone for a new academic block, which was inaugurated in 2021. In 2023, ICCONS celebrated its Silver Jubilee with the inauguration of a solar power plant and the Silver Jubilee Gate, symbolizing its commitment to sustainability and institutional legacy.

Seminars, Conferences, Workshops

ICCONS has achieved significant milestones in academic and professional engagement through a series of landmark seminars, conferences, and workshops, as detailed in the annexure (**Annexure IV**). Beginning with the CME and National Conference on Dementia, the first National Conference on Autism, and a seminar on learning disabilities in 1999, ICCONS quickly expanded to international platforms with the first and second International Conferences on Neurology, Language, and Cognition in 2000 and 2002.

5.1 Innovations & Initiatives

I Am Ready Programme

The *I Am Ready* programme is an early childhood intervention initiative designed to prepare children with Autism Spectrum Disorder (ASD) for admission into mainstream schools. This three-month multidisciplinary programme integrates behaviour therapy, speech and language therapy, physiotherapy, and special education. It is specifically tailored for children between the ages of 4 and 6 years.

Progress Report This document presents the progress report of each ward, who has successfully completed the three-month programme.

- **Psychological Assessment:** Clinical psychologists conduct pre- and post-intervention evaluations in the domains of communication, socialization, occupational skills, and self-help abilities.
- **Speech and Hearing Assessment:** Speech-language pathologists and audiologists carry out detailed assessments before and after the intervention, focusing on auditory processing, oro-motor skills, and speech and language development.
- **Physiotherapy Assessment:** Each child undergoes a pre-assessment based on individual physical concerns. A personalized exercise plan is implemented, followed by post-course evaluations. Recommendations and future plans are shared with parents to ensure continuity of care.
- **Special Education** Special educators provide training in Activities of Daily Living (ADL), helping children develop independence and functional skills essential for everyday life.

In addition to therapeutic interventions, these children are provided opportunities for picnic outings and guided shopping activities, designed to foster social interaction, community participation, and the development of appropriate social behaviours.

Department of ASLP – Early Intervention Programme

Children enrolled in the Early Intervention Programme are classified into three groups—**Buds, Flowers, and Blossoms**—based on their *Receptive Language Age*. Each group follows a structured, parent-oriented training approach designed to strengthen communication and language skills.

- **Buds Group (Alphabet Level):** At this stage, children are introduced to the phonetic and phonemic structures of letters. Learning is supported through appropriate tools such as audio recordings, video demonstrations, and rhymes.

- **Flowers Group (Word Level)** Children progress to word-level learning. Instruction is tailored for differently abled children using audio-visual aids, paper-based tools, and interactive activities.
- **Blossoms Group (Sentence Level):** At this advanced stage, children are trained to understand and use sentences. The focus is on building meaningful communication skills through structured group sessions.

This programme is **parent-oriented**, ensuring that families are actively involved in the training process, thereby reinforcing learning at home and supporting the child's overall development.

Department of Clinical Psychology – Intervention Programme (Music-Movement)

The Department of Clinical Psychology conducts a **Parent Support Training Programme** designed for children with Autism Spectrum Disorder (ASD) between the ages of 3 and 8 years.

This initiative adopts an **Art Movement approach**, integrating music, drawing, rhythmic movement, yoga, and other creative activities. Each session is carefully planned and led by experienced clinical psychologists, ensuring that children receive holistic developmental support while parents are actively engaged in the process.

The programme not only fosters communication, emotional expression, and social interaction in children but also empowers parents with strategies to continue supporting their child's growth at home.

Life Skill Training Programme

The **Life Skill Training Programme** is designed to prepare differently abled children for admission into mainstream schools. This structured intervention is intended for children **above 6 years of age** and focuses on developing essential skills required for independent functioning and successful integration.

- **Programme Duration:** 3 months
- **Assessments:** Comprehensive pre- and post-assessments are conducted to evaluate progress and outcomes.
- **Focus Areas:** Training emphasizes practical life skills, social behaviour, communication, and adaptive functioning to support school readiness and overall development.

This programme ensures that children receive systematic guidance while parents are provided with feedback and strategies to continue supporting their child's growth beyond the training period.

SLD Training Programme

With the support of various clinical departments, ICCONS conducts Specific Learning Disorder (SLD) Training sessions every Saturday.

This is a group training programme designed for school-going children with SLD. The sessions are collaboratively led by a team of professionals, including special educators, clinical psychologists, clinical linguists, and speech-language pathologists.

To ensure effective learning, separately prepared materials and structured modules are used by the training personnel, tailored to the unique needs of each child.

Vacation Training Programme

The Vacation Training Programme is conducted annually during the months of April and May. This is a structured group training initiative designed to enhance the learning abilities of children through multidisciplinary collaboration.

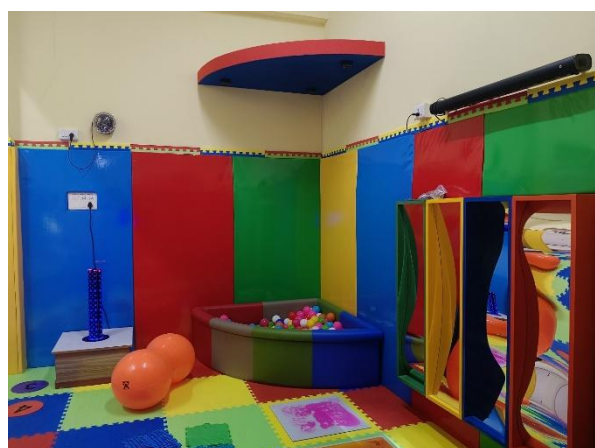
- Programme Design: Modules and materials are specially prepared by personnel from each clinical department of ICCONS, in coordination with other departments, ensuring a comprehensive and integrated approach.
- Goals: Separate, well-defined goals are set for the programme, focusing on improving the academic and developmental skills of participating children.
- Social Behavioural Activities: In addition to classroom-based training, children are engaged in picnic outings and guided shopping activities. These experiences are designed to foster social interaction, community participation, and the development of appropriate social behaviours.

NEW INITIATIVES

1. Sensory Integration Therapy Unit



Pic 24- Sensory Integration Therapy unit



Pic 25- Sensory Integration Therapy unit

ICCONS is taking proactive steps to establish Sensory Integration Therapy Units at both Thiruvananthapuram and Shoranur. These units are designed to strengthen rehabilitation services for individuals with neurodevelopmental disorders, particularly autism, by addressing sensory processing challenges that affect daily functioning.

By introducing Sensory Integration Therapy, ICCONS aims to provide children and families with more comprehensive support, bridging clinical expertise with community needs.

2. Play Therapy Unit



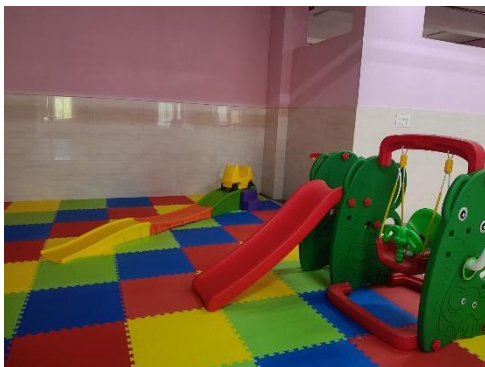
Pic 26- Play Therapy unit

ICCONS is establishing a dedicated Play Therapy Unit to enrich its rehabilitation services. This unit will provide children with diverse disabilities a safe and engaging environment where they can express



Pic 27- Play Therapy unit

themselves through enjoyable, interactive activities. Play therapy is not only a medium of recreation but also a structured therapeutic approach that fosters communication, social interaction, emotional regulation, and cognitive development.



Pic 28- Play Therapy unit

By integrating play into therapy, ICCONS aims to reduce anxiety, build confidence, and strengthen adaptive skills in children, thereby complementing existing interventions in speech, language, and cognitive rehabilitation.

3.Sensory Park

Work of the new Sensory Park at Shoranur is in the pipe line which consists of a sensory pathway, sensory garden, and sensory play equipment. It aims to bring children with various disabilities to a nature-friendly environment which provide therapy through textured pathways, musical instruments, scented plants etc.

4. IT Integrated Rehabilitation Therapy Unit

ICCONS is taking steps to establish IT-Integrated Rehabilitation Therapy Units at its Thiruvananthapuram and Shoranur centres. These units will utilize modern technology to create interactive, real-life scenarios that accelerate intellectual development in children with diverse disabilities. By combining immersive technology with sensory integration, IT-integrated therapy helps individuals with special needs grow, learn, and succeed in inclusive settings.

5. Occupational Therapy Units



Pic 29- Occupational Therapy unit

ICCONS is establishing occupational therapy Units at its Thiruvananthapuram and Shoranur centres. Occupational Therapy forms an integral part of rehabilitation programmes for children with Autism Spectrum Disorder (ASD), particularly in addressing sensory processing abnormalities.

These units will provide structured interventions that enhance motor coordination, daily living skills, and adaptive functioning, thereby supporting children in achieving greater independence.



Pic 30- Occupational Therapy unit

Augmentation of functions of genetic lab:

At ICCONS Shoranur, steps are being taken to upgrade the existing Genetic Laboratory, enhancing its capacity for genetic investigations and supporting research in the field of various hereditary and neurodevelopmental and developmental disorders.

Transcranial Magnetic Stimulation (TMS)

Transcranial magnetic stimulation (TMS) is a noninvasive procedure that uses magnetic fields to stimulate nerve cells in the brain to improve various neurological conditions. ICCONS will be starting the TMS therapy for the management of communicative disorders like acquired aphasia and post stroke locomotor disability.

TMS will be introduced for stroke rehabilitation, post-trauma recovery, and also will be considered for the management of neurodevelopmental disorders.

Chapter 6

Budget and Financial Allocation

The Institute for Communicative and Cognitive Neurosciences (ICCONS) is a grant in aid autonomous institution under the department of Health and Family Welfare, Govt. of Kerala. This is the only institution in the State providing a comprehensive multidisciplinary rehabilitation service under one roof for the benefit of people with various neurodevelopmental disorders, stroke related aphasia, dementia and other types of cognitive and communicative disorders. The main source of Income is the grant in aid allocation from the State Govt. Last 5 years Govt. have favourably supported ICCONS to create capital assets.

Fund Allocation and Utilization

Year	Budget Allocation	Utilization	Creation of Capital Assets	Purchase of Equipment and others
2021-22	500	237.30	146	91.30
2022-23	500	266	170	96
2023-24	500	233.43	165	68
2024-25	734	181.65	175.65	6
2025-26	734	183.59	122	61.5
2026-27	1000			

Table 3- Fund Allocation and utilization

Key Implementation implications

- One of the key areas of utilization of funds during the last five years is in the concept/ harvesting green energy. We have installed 90kW Solar Power Plant at ICCONS Shoranur and 25kW at ICCONS Trivandrum which resulted in significant reduction in electricity bill.
- Rain water harvesting and water purification system and reclamation of the old unutilised wells in the campus is being done at Shoranur. As Palakkad District is among the most water-deficient regions in the state, this is especially significant.
- ICCONS is now focusing on new therapeutic interventions for the betterment of children with Neurodevelopmental disorders as well as adults with various disabilities.
- First Floor Extension work of ICCONS Trivandrum was completed which is being utilised for the commencement of new therapeutic modalities.
- As part of the comprehensive rehabilitation programme we are in the process of establishing sensory integration therapy unit, occupational therapy unit and sensory play area at both centres

- Initial steps were undertaken to start a sensory park at ICCONS Shoranur. A similar unit at Trivandrum campus is also planned.
- An IT integrated therapy unit will be set up at both centres shortly.
- The project of augmentation functions of the genetic lab at Shoranur is underway
- ICCONS will be starting TMS Therapy for the rehabilitation of post stroke patients with aphasia and locomotor disability.
- Renovation work of the girl's hostel and hospital block is underway
- IP based CCTV installation was completed in the exam hall at ICCONS Shoranur

Budget Allocation for the last 5 years Plan and Non Plan

Year	Plan Fund			Non Plan Fund			
	Budget Allocation	Released Amount	Expenditure	Budget Allocation	Additional Authorization	Total	Expenditure
2021-22	500	276.67	237.30	222.51	229.93	452.44	452.44
2022-23	500	266	266	241.14	24	265.14	265.14
2023-24	500	328.08	233.43	245.23	65	310.23	310.23
2024-25	734	181.65	181.65	247.32	Nil	247.32	247.32
2025-26	734	256.90	183.59	253.65	180	433.65	433.65

Table 4- Budget Allocation for the last 5 years Plan and Non Plan

PHOTO GALLERY

ICCONS TRIVANDRUM

The Society started its first Institution at Thiruvananthapuram, which was inaugurated by the Hon'ble Chief Minister of Kerala Sri. E. K. Nayanar on 2nd October 1998.



Pic – Inauguration of ICCONS (1998)



Inauguration of new building at Thiruvananthapuram by the Hon'ble Chief Minister of Kerala Sri Oommen Chandy 19th February 2014



ICCONS SHORANUR

The Society started its second major Institute - Institute for Communicative and Cognitive Neurosciences (ICCONS) at Shoranur in Central Kerala on 16th November 2000. **Smt.P.K.Sreemathy Teacher**, Hon.Minister for Health and Family welfare and Social Welfare, Govt of Kerala, Chairperson SRCCD formerly inaugurated the Institute, on 23rd September 2007



Pic - ICCONS, Shoranur



Pic – Inauguration of ICCONS, Shoranur

LAND AND BUILDING RECEIVED THROUGH DONATION

Sri.V. Govindankutty a Philanthropist from Kavalappara Shoranur donated 4 acres and 27 .75 cents of Land and Incomplete building **belonging to Smt.V.K. Amma Trust**, Kavalappara, Shoranur, Palakkad (Dist) to SRCCD.



This was an unexpected windfall in the history of SRCCD, as the master plan of the society was to start a central institute in mid Kerala. The Governing body of SRCCD on 6-2-1999 - decided to accept the offer of the donation. The Govt .of Kerala through the Depart of Health and Family Welfare sanctioned Rs. Fifty Lakhs for the completion of the work and an additional Fifty Lakhs Rs. was availed through loan from KFC. The Institute started functioning from Nov



2000 though official inauguration was delayed till 2007 due to various reasons.

Inauguration of CT Scan Unit by Hon'ble Minister for Health Sri. V.S Shivakumar in 2013



Inauguration of Ullattuthodiyl Campus at ICCONS Shoranur, by the Hon'ble Chief Minister of Kerala Sri.Oommen Chandy



Pic – Inauguration, Ullattuthodiyil Campus, ICCONS, Shoranur

Academic Block Inauguration

Online inauguration of Academic Block of ICCONS, Shoranur was done by Hon'ble Health and Family Welfare Minister Smt.K K Shylaja teacher.



Audiology lab inauguration at ICCONS Shoranur by Hon'ble Minister for Health and Family Welfare Minister Smt.Veena George



ICCONS – SHORANUR HOSPITAL BUILDING



ACADEMIC BLOCK



NEURO ELECTROPHYSIOLOGY LAB



BIO-CHEMISTRY LAB



GENETIC LAB



CT SCAN



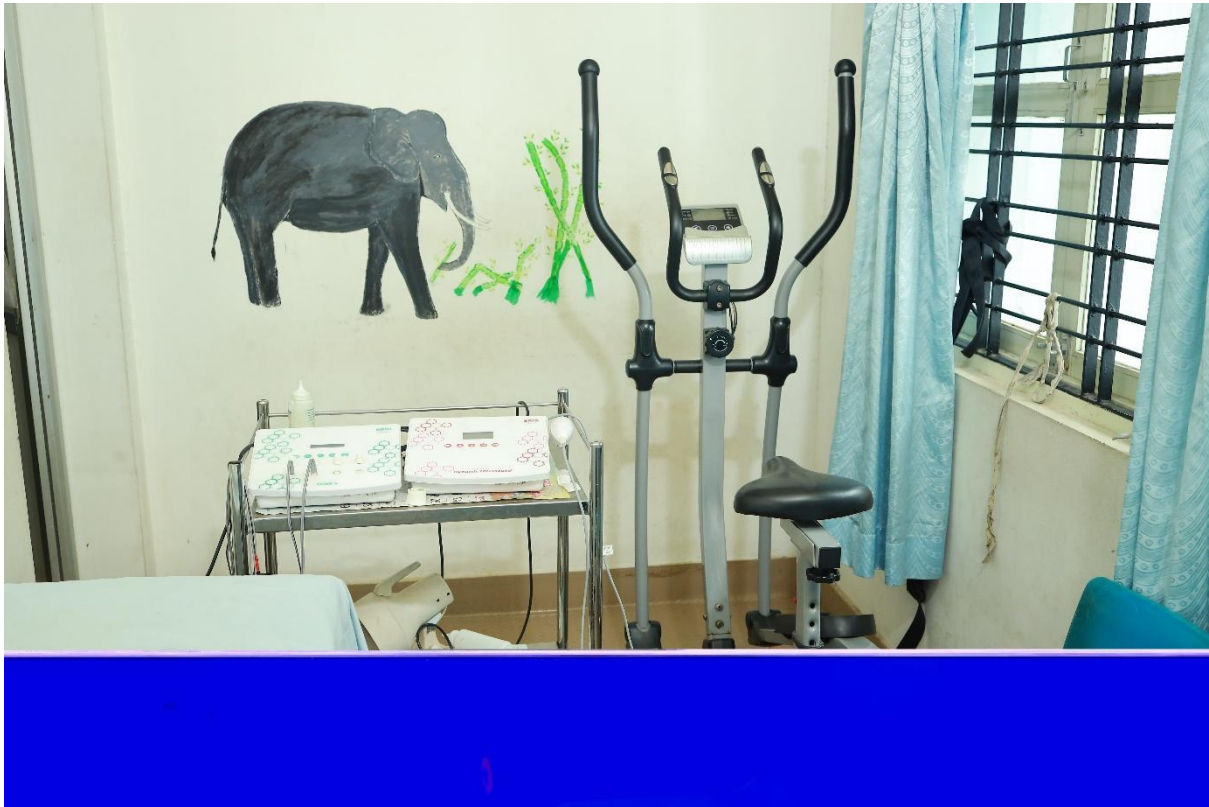
Portable X Ray



Digital X Ray unit



PHYSIOTHERAPY DEPARTMENT



WAITING AREA



SPECIAL SCHOOL



CANTEEN



GIRLS HOSTEL



ICCONS – THIRUVANANTHAPURAM



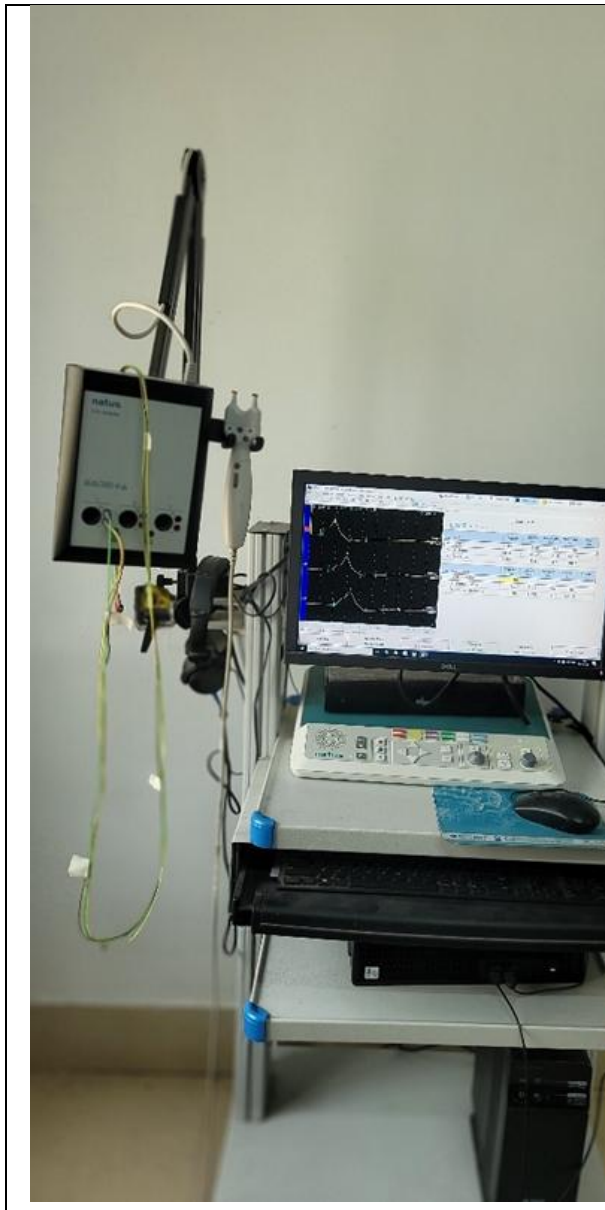
ICCONS – THIRUVANANTHAPURAM, SPECIAL SCHOOL



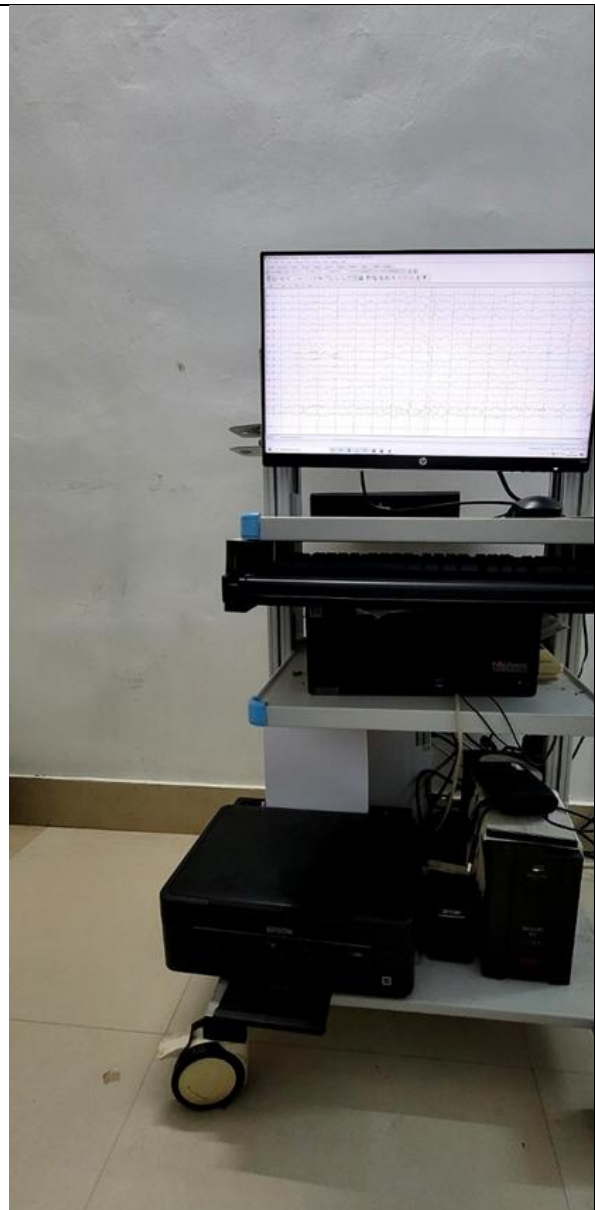
Sensory Integration therapy unit



The Natus UltraPro S100 NCS Machine



Nicolet v32 EEG System



ANNEXURE I

Human Resources

ICCONS, Shoranur

Staff: Regularized

Name of post	Number of posts
Staff Nurse	1
PRO	1
Biochemist	1
Data Entry Operator	1
Clerk	1
EEG Technician	1
Ward Assistant	7
Attender	2
Cleaner	2

Staff: On contract

Name of post	Number of posts
RMO	3
Associate Professor - Genetics	1
Associate Professor in ASLP	1
Lectr.in ASLP - Gr.I	4
Lectr. Gr.II in the ASLP Dept.	2
Clinical Supervisor Gr.II	1

Lectr.Gr.II in Clinical Psychology	2
Clinical Supervisor in Clin. Psychology	2
Physiotherapist	4
Special Educator	1
Special School Teacher	1
Special School Asst.	3
Neuro electrophysiologist	1
Radiographer	1
Dietician	1
Pharmacist	1
Pharmacy Assistant	1
Staff Nurse	2
Nursing Assistant	3
Lab Technician	1
Lab Assistant	1

Administrative Officer	1
Accounts Assistant	1
Library Assistant	1
Computer Assistant	1
Receptionist	1
Reception - Trainee	1
Ward Assistant	15

Electrical Supervisor	1
Electrician	1
Electrician - Trainee	1
Special School Attender	1
General Worker	1
Cleaner	2
Gardener	2
Hostel Warden	1
Driver	1

Staff: On Daily Wages

Name of post	Number of posts
Security	2
Driver	1
Mess Helper	4
Cleaner	4

ICCONS, Trivandrum

Staff: Regularized

Name of post	Number of posts
Lecturer in Clinical Psychology-Gr.I	1
Lecturer in Clinical Psychology-Gr.II	2
Lecturer in ASLP-Gr.II	1

Lecturer in Linguistics-Gr.II	1
Physiotherapist	1
Clinical Assistant ASLP	1
Accounts Officer	1
Computer Programmer	1
Clerk	2
Driver	1
Attender	4
Cleaner	2

Staff: On contract

Name of post	Number of posts
Administrative Officer	1
Receptionist	1
Attender	1
Security	3

Name of Post	Number of Post
Lecturer in ASLP Gr.I	1
Lecturer in ASLP	1
Lecturer in Clinical Psychology Gr.II	1
Registrar in Clinical Psychology	1

Physiotherapist	1
Special School Teacher	2
rr EEG Technician	1
Staff Nurse	1

Staff: On Daily Wages

Name of post	Number of posts
Attender	1
Cleaner	1

ANNEXURE II

Research Programs - Extramural Research Projects

Ongoing

1. Neurophysiological effects of meditation: A comprehensive comparative study with Sadhus/monks and healthy controls attending Kumbha Mela 2025” funded by Ministry of Ayush and in collaboration with IYRF, C-DAC and Govt. Medical College, Trivandrum
 - PI-Dr. Thomas Iype
 - Co- PI – Dr. Murugan C Nair, Director(i/c), ICCONS
2. “Topical Oil Pooling(Karnapurana) with KshirabalaTaila and supple Mentation of Ashwagandha Churna(TOPMAC) IN controlled trial”. Funding agency: Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Govt. of India
 - Principal Investigator –Dr. Krishna Kumar V., R.O. (Ay.)
 - Co- Principal Investigator – Dr. Sanjeev V Thomas, Dr.Murugan C Nair,ICCONS
 - Co- Investigator – Dr. Parvathy.G.Nair, R.O. (Ay.), Dr. Nish, Asst. Professor, Dept. of ASLP, ICCONS

Completed

1. Quantification of cognitive Disability in children with the new Malayalam version of ICF-CY - Funding agency: Kerala State Commissionerate for Persons with Disabilities
 - Principal Investigator – Dr. Sanjeev V Thomas, Director, ICCONS
 - Co- Investigator – Dr. Mary Iype, Professor, Pediatric Neurology, GMC, Trivandrum, Dr. Anish T S, Professor, Dept. of Community Medicine, GMC, TVM, Dr. Murugan C Nair, Consultant Neurologist Dept. of Neurology, ICCONS,TVM, Dr. Vishnu Prasad S, Research Officer, ICCONS
2. Neurocognitive Impairment in Prostate Cancer Patients on Androgen Deprivation Therapy- Funding agency: Regional Cancer Centre, Thiruvananthapuram
 - Principal Investigator – Dr. Francis V James, Prof & Head, Radiation Oncology Dept, RCC
 - Co-Principal Investigator – Dr. Sanjeev V Thomas, Director, ICCONS & Dr. Bhagya A S, Junior Resident, Radiation Oncology, RCC
 - Co- Investigator – Sreekumar S, Lecturer, ICCONS, Dr. Jagathnath Krishna K M, Assoc.Prof, RCC, Dr. Aswin Kumar, Addl. Prof, RCC, Dr.Susan Mathews, Addl. Prof, RCC, Dr. John Joseph, Assoc. Prof, RCC & Dr. Aparna M P, Asst. Prof, RCC
3. “Comparison of the effect of training in magical sciences and a variety of art forms and training using conventional therapy in addition on behavioural and other outcomes among differently abled children- Funding agency: Collaborative Project by ICCONS & Different Arts Centre(Academy of Magical Sciences)
 - Principal Investigator – Dr. Mary Iype, Professor, Pediatric Neurology, GMC, Trivandrum & Mr. Gopinath Muthucaud, Executive Director, The Academy of Magical Sciences
 - Co- Principal Investigator – Dr. Sanjeev V Thomas, Director, ICCONS, Dr. Nisha V M, Different Arts Centre

4. Identification of specific DNA methylation biomarkers in spinal muscular atrophy and its application as a therapeutic target- Funding agency: Multidisciplinary Research Unit, Govt. Medical College, Thiruvananthapuram
 - Principal Investigator – Dr. Anitha Ayyappan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS
5. Genetic characterization and clinical correlates of polymicrogyria syndromes -Funding agency: Indian Council of Medical Research (ICMR), Govt. of India
 - Principal Investigator – Dr. Anitha Ayyappan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS
6. The Spectrum of Impairment and Prediction of Disability in Cognitively Challenged Children in Kerala Funding source - Centre of Excellence for Disability Studies
 - Principal Investigator – Dr. Sanjeev V Thomas, Director, ICCONS
 - Co- Investigator – Dr. Mary Iype, Professor, Pediatric Neurology, GMC, Trivandrum, Dr. Anish T S, Assoc. Professor, Dept. of Social & Preventive Medicine, GMC, TVM, Dr. Hamza Mullath, Asst. Professor in Pediatrics, ICCONS
7. Extensive mutational analysis of neural and synaptic genes using next generation sequencing approaches in Indian autism families- Funding source - Kerala State Council for Science Technology & Environment (KSCSTE)
 - Principal Investigator – Dr.Thanseem Ismail, Research Fellow, ICCONS, Shoranur
 - Co- Investigator – Dr. P. A Suresh, Director, ICCONS, Dr. Anitha Ayyan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS, Ms. Nisha M L, Assistant Professor, Dept. of ASLP, ICCONS.
8. Targeted exon sequencing to identify novel, rare and/or common functional genetic variants in autism: A comprehensive twin-family study of autism in Kerala- Funding source - Kerala State Council for Science Technology & Environment (KSCSTE)
 - Principal Investigator – Dr. Anitha Ayyan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS
 - Co- Investigator – Dr. P. A Suresh, Director, ICCONS, Dr.Thanseem Ismail, Research Fellow, Ms. Nisha M L, Assistant Professor, Dept. of ASLP, ICCONS.
9. Photoparoxysmal EEG responses in children with idiopathic generalized epilepsy Genetic characterization and clinical correlates- Funded by Dept. of Science and Technology Cognitive Science Research Initiative (DST-CSRI), Govt. of India
 - Principal Investigator – Dr. Anitha Ayyan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS
 - Co- Investigator – Dr. Mary Iype, Professor, Pediatric Neurology, GMC, Trivandrum
10. Genetic characterization and clinical correlates of polymicrogyria syndromes- Funding source - Indian Council of Medical Research (ICMR), Govt. of India
 - Principal Investigator – Dr. Anitha Ayyan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS.
 - Co- Investigator – Dr. Mary Iype, Professor, Pediatric Neurology, GMC, Trivandrum

11. The Spectrum of impairment and prediction of disability in cognitively challenged children in Kerala
 - Principal Investigator – Dr. Sanjeev V Thomas, Director, ICCONS
 - Co- Investigator – Dr. Mary Iype, Professor, Pediatric Neurology, GMC, Trivandrum, Dr. Anish T S, Asso. Professor, Dept. of Community Medicine, GMC, Trivandrum Dr. Hamza Mullath, Assistant Professor, Dept. of Paediatrics, ICCONS, Shoranur
12. Effect of an early intervention program in management of Cognitive, Behavioural and Language skills of children with Autism Spectrum Disorders
 - Principal Investigator – Dr. Nandini Jayachandran, Lecturer in Clinical Psychology-Grade 1 ICCONS, Trivandrum
 - Co- Investigator – Dr. Mary Iype, Additional Professor, Pediatric Neurology, GMC, Trivandrum
13. DNA methylation analysis in specific language impairment- Funding source-: Science and Engineering Research Board (SERB)
 - Principal Investigator – Dr. Anitha Ayyan Pillai, Associate Professor, Dept. of Neurogenetics, ICCONS
 - Co- Investigator – Dr. P. A Suresh, Director, ICCONS, Dr.MaryIype, Asso. Professor, Pediatric Neurology, GMC, Trivandrum, Ms. Nisha M L, Assistant Professor, Dept. of ASLP, ICCONS.
14. Early identification and intervention in Developmental dyscalculia” funded by Cognitive Science Research Initiative (CSRI) of the Department of Science and Technology, Govt. of India
 - Principal Investigator – Dr. Nandini Jayachandran, Lecturer in Clinical Psychology-Grade 1 ICCONS, Trivandrum
 - Co- Investigator – Dr. Immanuel Thomas, Former HOD & Professor, Department of Psychology, University of Kerala
15. Maternal Training Program for Rehabilitation and Education of Children with Autism – National Rural Health Mission (NRHM) Project
 - Principal Investigator – Dr. P.A. Suresh, MD, DM (Neuro), Director, ICCONS
 - Co- Investigator – Dr. Meena Menon, Lectr. in Clinical Psychology – Gr.I; Dr. Athira.T.S, Asst. Professor in Paediatrics; Ms. Nandhini Jayachandran, Lectr. in Clinical Psychology – Gr.I; Ms. Geethi.S, Lectr. in Speech Language Pathology– Gr.I
16. Genetic Study and DNA Mapping
 - Dr. P.A.Suresh, MD, DM (Neuro), Dr. Moinek Banerjee and Dr. Meena Menon
17. Comprehensive Approach to Prevention, Treatment and Rehabilitation of Non-Communicable Disorders and Disabilities
 - Dr. P.A.Suresh, MD, DM (Neuro), Dr. Meena Menon, Ms. Geethi.S and Ms. Nandhini Jayachandran
18. Multimodal Stimulation and Psychodynamic Exercises for the Rehabilitation of Children with Cognitive Language and Motor Disabilities.
 - Principal Investigator – Dr. P.A.Suresh, MD, DM (Neuro), Director, ICCONS

- Co- Investigator – Dr. Meena Menon, Lectr. in Clinical Psychology – Gr.I; Dr. Athira.T.S, Asst. Professor in Paediatrics
19. Development of Teaching aids and Training Materials to enhance the language ability through stimulating the cognitive skills of children with Learning Disorders – funded by Centre for Disability Studies
- Principal Investigator – Dr. Biji V, Lecturer Gr I, ICCONS
 - Co-investigator – Sreekumar. S, Lect. Gr.II, Varghese Mathew, Lect. Gr.II

ANNEXURE III

DETAILS OF SCIENTIFIC ARTICLES PUBLISHED

1. Mary Iype, T.S. Anish MD, Sanjeev V. Thomas, Hamsa Mullath, Murugan C. Nair, Nandini Jayachandran, S. Sreekumar, Varghese Mathew, V.S. Santhi, G.S. Dhanalekshmi, Prasad S. Vishnu. *Pediatric Neurology*. 2026 Feb; doi:doi.org/10.1016/j.pediatrneurol.
2. Iype M, Surendran M O, Jesmy J, Aadhira R, Smriti M, Arya K S, Gokul B, Rahul K, Anitha A (2025). Differential expression of neurogenesis-relevant genes in the peripheral blood lymphocytes of children with polymicrogyria NEXRES 8 (2026) 101540
3. Iype M, James J, Surendran M O, Anitha A (2025) Genetic profiling of polymicrogyria in a south Indian cohort. *Ann Ind Acad Neurol* 28: 422-425.
4. Anitha A, Banerjee M, Thanseem I, Melempatt N, Prakash A, Iype M, Thomas SV (2025) Whole exome sequencing of a multizygotic quadruplet discordant for autism spectrum disorder reveals novel autism candidate genes. *Neurol India* 73: 152-155.
5. M. Iype, N. Melempatt, J. James, S.V. Thomas, A. Anitha, "Hypomethylation of WNT signaling regulator genes in developmental language disorder," *Epigenomics*, vol. 16, pp. 137-146, 2024.
6. Anitha, I. Thanseem, M. Iype, S.V. Thomas, "Mitochondrial dysfunction in cognitive neurodevelopmental disorders: Cause or effect?" *Mitochondrion*, vol. 69, pp. 18-32, 2023
7. Anitha, M. Banerjee, I. Thanseem, A. Prakash, N. Melempatt, P.S. Sumitha, M. Iype, S.V. Thomas, "Rare pathogenic variants identified in whole exome sequencing of monozygotic twins with autism spectrum disorders," *Pediatric Neurology*, vol. 158, pp. 113-123, 2024.
8. K. Kumar, S. Thomas, M.C. Nair, G. Parvathy, M.L. Nisha, S. Anuradha, et al, "Ayurvedic management of presbycusis (Project TOPMAC): Protocol for an exploratory randomized controlled trial," *JMIR Research Protocols*, vol. 23, pp. 13:e55089, 2024
9. M.M. Vasu, L. Koshy, S. Ganapathi, P. Jeemon, M. Urulangodi, S. Gopala, P. Greeva, A. Anitha, et al, "Identification of novel endogenous control miRNAs in heart failure for normalization of qPCR data," *International Journal of Biological Macromolecules*, vol. 261 (Pt2), pp. 129714, 2024.
10. Thanseem, M. Banerjee, N. Melempatt, A.Prakash, M. Iype, A.Anitha, "Comprehensive genetic study of a monozygotic triplet discordant for autism spectrum disorder," *Neurology India*, vol. 72, pp. 384-387, 2024
11. Thanseem I, Banerjee M, Melempatt N, Prakash A, Iype M, Anitha A. Comprehensive genetic study of a monozygotic triplet discordant for autism spectrum disorder. *Neurol India* (Accepted)
12. Anitha A, Thanseem I, Iype M, Thomas SV (2023) Mitochondrial dysfunction in cognitive neurodevelopmental disorders: Cause or effect? *Mitochondrion* 69: 18-32

13. Indiradevi KP, Suhara EM, Poovathinal SA, Anitha A (2022) Distinguishing cognitive states using electroencephalography local activation and functional connectivity patterns. *Biomed Signal Process Control* 77: 103742.
14. Mathew V, Srivastava R, Nair AK. Difference in the cognitive profile of children with specific learning disabilities. *Santosh Univ J Health Sci.* 2022, 8: 48-51
15. Thomas SV, Salim S, Jacob NS, Jose M, Salini RA, Selvaraj S, Gomez TS, Sreedharan H, Jeemon P. Language, intelligence, and educational outcomes of adolescents with antenatal exposure to antiseizure medications: Prospective data from the Kerala Registry of epilepsy and pregnancy. *Seizure.* 2022 Aug;100:76-81. doi: 10.1016/j.seizure.2022.06.005. Epub 2022 Jun 17. PMID: 35780605.
16. Chandrasekharan SV, Menon RN, Nanda S, Nair JS, Radhakrishnan A, Cherian A, Thomas SV. Does Etiology and Hypsarrhythmia Subtype Influence Outcome in West Syndrome? Challenges Encountered from a Referral Center Perspective. *Neurol India.* 2022 JanFeb;70(1):188-196. doi: 10.4103/0028-3886.336325. PMID: 35263882.
17. Menon RN, Nambiar PN, Keni RR, Baishya J, Radhakrishnan A, Cherian A, Nampoothiri S, Madhavilatha GK, Kotecha UH, Thomas SV. Drug-resistant 'Non- Lesional' Visual Sensitive Epilepsies of Childhood - Electroclinical Phenotype- Genotype Associations. *Neurol India.* 2021 Nov-Dec;69(6):1701-1705. doi: 10.4103/0028-3886.333508. PMID: 34979672.
18. Rudrabhatla PK, Reghukumar A, Thomas SV. Mucormycosis in COVID-19 patients: predisposing factors, prevention and management. *Acta Neurol Belg.* 2022 Apr;122(2):273-280. doi: 10.1007/s13760-021-01840-w. Epub 2021 Nov 24. PMID: 34820787; PMCID: PMC8612391.
19. Thomas SV, Jeemon P, Pillai R, Jose M, Lalithakumari AM, Murali S, Sanalkumar A, Salini RA, Pavithran V. Malformation risk of new anti-epileptic drugs in women with epilepsy; observational data from the Kerala registry of epilepsy and pregnancy (KREP). *Seizure.* 2021 Dec;93:127-132. doi: 10.1016/j.seizure.2021.10.015. Epub 2021 Oct 23. PMID: 34740142.
20. Asranna A, Thomas SV. Metabolic Effects of Anti-Seizure Medications: A Time to Reevaluate Risks? *Neurol India.* 2021 Jul-Aug;69(4):964-965. doi: 10.4103/00283886.325336. PMID: 34507422.
21. Baishya J, Menon RN, Ravish Keni R, Saraf UU, Varma RP, Radhakrishnan A, Cherian A, Thomas SV. Can occurrence of convulsive status epilepticus during video telemetry be predicted? Observations from an epilepsy monitoring unit. *Epilepsy Behav.* 2021 Oct;123:108252. doi: 10.1016/j.yebeh.2021.108252. Epub 2021 Aug 23. PMID: 34438130.
22. Seshachala BB, Jose M, Lathikakumari AM, Murali S, Kumar AS, Thomas SV. Valproate usage in pregnancy: An audit from the Kerala Registry of Epilepsy and Pregnancy. *Epilepsia.* 2021 May;62(5):1141-1147. doi: 10.1111/epi.16882. Epub 2021 Mar 29. PMID: 33782943.

23. Anitha A, Poovathinal SA, Viswambharan V, Thanseem I, Iype M, Anoop U, et al. MECP2 Mutations in the Rett Syndrome Patients from South India. *Neurol India* 2022;70:249-53
24. Swetha Damodharan , Mary Iype , Ayyappan Anitha. Neurodevelopmental genes in photoparoxysmal EEG response. In the conference proceedings of 8th Annual Conference of Cognitive Science (ACCS8)
25. Dr. Nandini Jayachandran, Dr. Immanuel Thomas, Dr. Mary Iype, Dr. Suresh P.A. and Sneha Sebastian Cultural Adaptation of M-CHAT R/F Malayalam version In the conference proceedings of 8th Annual Conference of Cognitive Science (ACCS8)
26. Mary Iype, Mithran OS, Anitha Ayyappan, MathewIype "Congenital Muscular Dystrophy Due to POMGNT1 Mutation Presenting As Cardio-embolic Stroke *AIAN* 2022;25(3):551-3. "DOI:10.4103/aian.aian_944_21
27. James Jesmy, Iype Mary, Surendran Mithran Omana, Anitha Ayyappan, Thomas Sanjeev V. The genetic landscape of polymicrogyria *AIAN* 2022;25(4):616- 26. DOI:10.4103/aian.aian_97_22
28. Ayyappan A, Thanseem Mohammed, Moinak Banerjee, Nisha Melempatt, Anil Prakash, MuhasinParapurathu, Mary Iype." Comprehensive Genetic Study of a Monozygotic Triplet Discordant for Autism Spectrum Disorder", Accepted for publication in *Neurology India*
29. Indiradevi KP, Suhara EM, Poovathinal SA, Anitha A (2022) Distinguishing cognitive states using electroencephalography local activation and functional connectivity patterns. *Biomed Signal Process Control*. 77: 103742
30. James J, Iype M, Surendran MO, Anitha A, Thomas SV. The genetic landscape of polymicrogyria. *Ann Ind Acad Neurol*. DOI: 10.4103/aian.aian_97_22.
31. Iype M, Mithran OS, Anitha A , Iype M. Congenital muscular dystrophy due to POMGNT1 mutation presenting as cardioembolic stroke - A case report. *Ann Ind Acad Neurol*. DOI: 10.4103/aian. aian_944_21.
32. Suhail TA, Indiradevi KP, Suhara EM, Poovathinal SA, Anitha A. Effect of smartphone distractions on cognitive performance in adolescents: An Electroencephalography Approach. *Basic ClinNeurosci*. DOI: 10.32598/bcn.2021.2295.2
33. Anitha A, Poovathinal SA, Viswambharan V, Thanseem I, Iype M, Anoop U, Sumitha PS, Parakkal R, Vasu MM (2022) MECP2 mutations in the Rett syndrome patients from south India *Neurol India*. 70: 249-253.
34. Suhail TA, Indiradevi KP, Suhara EM, Poovathinal SA, Anitha A (2021) Electroencephalography-based detection of cognitive state during learning tasks: An extensive approach. *Cogn Brain BehavInterdiscip J*. XXV:157-178
35. Anitha A, Viswambharan V, Thanseem I, Parakkal R, Sumitha PS, Vasu MM (2021) Vitamins and cognition: A nutrigenomics perspective. *CurrNutr Food Sci*. 17:348-362
36. Dr. Nandini Jayachandran "Methods of teaching mathematic in primary classesexperience education teacher "(Pages-6; 09/2016) *International Journal of Education & Psychological Research (IJEPR)*

37. Dr. Nandini Jayachandran "Identifying developmental Dyscalculia :perspectives of primary school teacher"(12/2017) Journal of Indian Academy of Applied Psychology(JIAAP)
38. Dr. Nandini Jayachandran "Cognitive deficits and behavioral disorders in children: A comprehensive multi discipline approach to management" (Pages- 16; 12/2016, Annals of Behavioral Science)
39. Knowledge, Attitudes & Practices of Primary and Secondary School Teachers on Specific Learning Disorders – A report of evidence from Thiruvananthapuram: KAP of Primary and Secondary School Teachers on SLD," which was included in the title
Handbook of Research on Psychosocial Perspectives of Human Communication Disorders
40. Dr. Nandini Jayachandran "Autistic Disorder(Pages-6; 5/2012)", ROOTS
41. Dr. Nandini Jayachandran, Knowledge, Attitudes & Practices of Primary & Secondary School Teachers on Specific Learning Disorders: A Report of Evidence from Thiruvananthapuram.(Pages- 34; 2017). - Handbook of Research on Psychosocial Perspectives of Human Communication Disorders
42. Dr. Nandini Jayachandran, "Efficiency of Cognitive Strategy Instruction in Developmental Dyscalculia with and without Neuropsychological Intervention: Insight from a validation trial.(DOI: 10.4018/978-1-6684-9983-2.ch011)
43. Lohithakshan, N. M (2021). An Overview on Learning Disability. In Ayurveda Physician MasikaGoldern Jubilee Special Edition 2021
44. Varghese M, Rani S, Nair AK. The role of working memory as a significant determinant of academic performance. Santosh Univ J Health Sci 2021;7:34-7
45. Spino Cerebellar Degeneration with interesting features. Nair K.G, Suresh.P.A. JAPI, 1986 Nov.
46. Speech and Language Assessment Battery (SLAB) in Indian languages. Suresh.P.A, Maya.S.,Mohan.P.K. ISDL publications Thiruvananthapuram 1993.
47. Case studies on Aphasia - Derivations of Brain mechanisms of language processing from observations of subject with communicative disorders. "Brain and Language". Suresh.P.A, Maya.S, Mohan.P.K. Seminar Proceedings, ISDL Publications, Thiruvananthapuram. PP 153 - 190, 1994,
48. Rehabilitation of Communicative Disorders: Experience outcome and newer perspectives "Brain and Language",Maya.S, Suresh.P.A. Seminar Proceedings, 210; 1994, ISDL Publications, Thiruvananthapuram.
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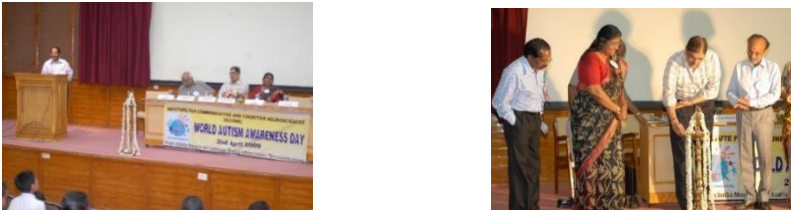
51. A new coding system for English alphabets with potential applications in the language rehabilitation of mentally retarded, linguistically handicapped and in computer science. P.A.Suresh, S.Maya, Koruth P. Varghese. IJD, VolXXIV No.1
52. Acute Pseudobulbar Mutism: A patient with an unusual stroke syndrome associated with good functional recovery. B.Santoshkumar, P.Abdu Rahiman, P.A Suresh, K Radhakrishnan. JAPI 1996, Vol.44, No.8, 567-568.
53. Motor Neuron Syndrome and Thymoma, Pandian JD, Mathuranath PS, Suresh PA, Radhakrishnan K. Myasthenia Gravis, Neurology India 46, 232-234, 1998.
54. Subclinical hyperthyroidism and hyperkinetic behaviour in children. Suresh PA, Sebastian S, George A, Radhakrishnan K. Pediatr Neurol 1999; 20: 192-194
55. Developmental Gerstmann's Syndrome - A distinct clinical entity of learning disabilities. Suresh PA, Sebastian S. Pediatr Neurol 2000; 22: 000-000
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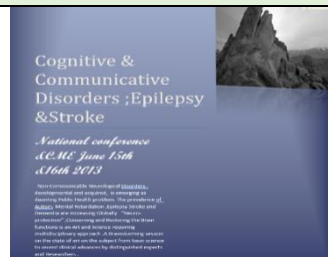
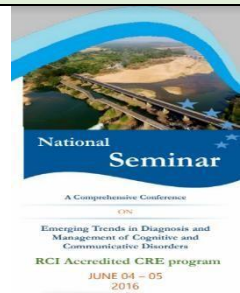
ANNEXURE IV

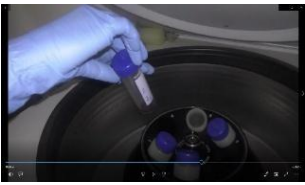
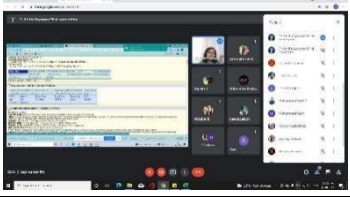
SEMINARS, CONFERENCES, WORKSHOPS

1999		
	CME & NATIONAL CONFERENCE ON DEMENTIA February 1999	
	FIRST NATIONAL CONFERENCE ON AUTISM November-1999	
	SEMINAR ON LEARNING DISABILITIES	
2000		
	FIRST INTERNATIONAL CONFERENCE ON NEUROLOGY, LANGUAGE AND COGNITION 20, 21&22 December- 2000	  
2002		
	2nd INTERNATIONAL CONFERENCE –NEUROLOGY, LANGAUGE AND COGNITION-18, 19 & 20 December 2002	 

	COMMUNITY BASED TRAINING PROGRAMME FOR LD UNDER UNDP PROJECT 20002005 
2003	
	COMMUNITY BASED REHABILITATION (CBR) COMMUNITY OUT REACH CENTER AT KOTTAYAM IN COLLABORATION WITH LIONS CLUB 
2007	
	INAGURATION OF TRAINING MOTHERS OF CHILDREN WITH AUTISM HON.MINISTER FOR HEALTH & FAMILY WELFARE 
	 RCI WEEK, SHORANUR AND TRIVANDRUM
2004	
	DISABILITIES AND YOU (DAY) A CONTINUING PUBLIC EDUCATION PROGRAMME ON DISABILITIES 

2007	
	INAUGURATION OF TRAINING MOTHERS OF CHILDREN WITH AUTISM 
	NPRPD PROGRAMME FOR THE MENTALLY CHALLENGED 
2008	
	NATIONAL CONFERENCE ON AUTISM 9,10,11TH APRIL 2008 
	INAGURATION OF WORKSHOP ON DISABILITIES BY THE HON.MINISTER FOR HEALTH AND FAMILY WELFARE 
2009	
	AUTISM AWARENESS DAY 

2011	
	National Conference on Autism at ICCONS, Thiruvananthapuram 
2012	
	National Conference on “Human Environment Interface and Synthetic Biology” at ICCONS, Shoranur 
2013	
	National Conference and CME on “ Cognitive and Communicative Disorders, Epilepsy and Stroke” at ICCONS, Shoranur 
2016	
	NATIONAL SEMINAR ON "EMERGING TRENDS IN THE DIAGNOSIS AND MANAGEMENT OF COGNITIVE AND COMMUNICATIVE DISORDERS" at ICCONS, Shoranur (June 04-05, 2016) 
2018	
	NATIONAL SEMINAR "GENETICS OF COMPLEX DISORDERS" at ICCONS, Shoranur (January 12-13, 2018) This seminar was cosponsored by ICMR, CSIR and KSCSTE 

2020	
	CME ON "GENETICS OF RARE DISORDERS" at ICCONS, Shoranur (March 01, 2020). This seminar was cosponsored by NAMS and MCI. 
	CRE PROGRAMME – MANAGING BEHAVIOURS IN THE CLASSROOM AND HOME at ICCONS, Thiruvananthapuram 
2021	
	VRITIKA Science and Engineering Research Board (SERB)-funded program VRITIKA in 2021 (Research Internships) at ICCONS, Shoranur.  
	CRE WEBINAR CRE Webinar conducted on 6th and 7th May 2021 , organized by ICCONS, Thiruvananthapuram 
2022	
	CME - ICCONS Neuro Update CME "ICCONS Neuro Update" held on 16th October 2022 at ICCONS, Shoranur. This CME programme was accredited by the Kerala State Medical Council 

	VRITIKA Science and Engineering Research Board (SERB)-funded program VRITIKA in 2022 (Research Internships) at ICONS, Shoranur.  
	CRE PROGRAMME ICONS, Thiruvananthapuram organized a CRE Programme on “Development of play and Social Skills in children with ASD” on 16th to 17th December 2022. 
2023	
	STATE LEVEL SEMINAR ON “NON-VERBAL LEARNING DISABILITY” was held on 23rd to 25th January 2023 at ICONS, Thiruvananthapuram 
	A two-day National Seminar “Epigenetics Meets Metabolomics” was organized at Institute for Communicative and Cognitive Neurosciences (ICONS), Shoranur on June 09 and 10, 2023. The program was cosponsored by, DBT, SERB, CSIR, KSCSTE 