

The responsibilities of C-DAC and that of TINJRIT, Udaipur are listed below:

1. Responsibilities of C-DAC

1. To provide the methodology and set the standards for the conduct of courses.
2. C-DAC shall send the list of hardware and software requirement for the conduct of IT courses to TINJRIT.
3. The duration and schedule of the IT course(s) will be laid out as per the convenience of TINJRIT and C-DAC mutually.
4. C-DAC, ACTS Pune shall make available the facility for students to fill in the application forms online on ACTS website <http://www.cdac.in>. Separate login shall be provided to the TINJRIT for viewing various admission related reports
5. CDAC shall provide faculty for the conduct of the courses during the entire duration of this MOU.
6. CDAC shall deliver the training on its own or through its Authorised Training partner.
7. CDAC shall provide the one week training at CDAC Pune for industry orientation and employability.
8. C-DAC undertakes to conduct the formative as well as the final evaluation and certification leading to the award of the courses.
9. Answer sheets for the Course end examination to be evaluated by C-DAC, ACTS – Pune.
10. The certificate shall be issued to all eligible and successful students by C-DAC ACTS, Pune subject to the receipt of full fees and other dues, if any, from the individual student. The certificate is to be jointly signed by TINJRIT and C-DAC ACTS.
11. If required, the duplicate certificate and / or mark sheet can be issued by C-DAC ACTS, Pune after receiving the extra fees prescribed by C-DAC, ACTS Pune from time to time.
12. C-DAC ACTS, Pune shall not be responsible for students' understanding / absorption / uptake / grasping / performance etc. in respect of lectures / practical / presentations / tests. C-DAC ACTS, Pune's responsibility is limited only to course design and guidelines on course delivery, providing faculty if required. It shall also not be liable

Memorandum of Understanding

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**Memorandum of Understanding
(MoU)**

Between

CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

3rd Floor, RMZ Westend Centre III,

DP Road, Aundh, Pune – 411 007

Tel.: 020 –25503100/101/102

Fax: 020 – 25503131

E-mail: acts@cdac.in

Website: www.cdac.in

And

TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY (TINJRIT)

PLOT -SPL-T, RIICO IND AREA, KALADWAS, UDAIPUR (RAJ.)

Ph: (91-294) 2418580

Email: technonjr@gmail.com

Memorandum of Understanding

This Memorandum of Understanding is executed on this 13 day of JUNE 2014 at Pune between

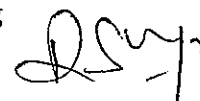
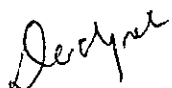
Centre for Development of Advanced Computing, a national initiative of the Department of Electronics and Information Technology, Ministry of Communications and Information Technology, Government of India registered under the Societies Registration Act 1860 and the Bombay Public Trust Act 1950 and having its registered address at Pune University Campus, Ganeshkhind, Pune 411 007, hereinafter referred to as C-DAC which expression shall, where the context admits, include its successors or assignees party of the first part

And

Techno India NJR Institute of Technology (TINJRIT) registered society, having its registered address at Plot- SPL-T, Bhamashah (RIICO) Industrial area, Kaladwas, Udaipur hereinafter referred to as **TINJRIT** which expression shall, where the context admits, include its successors or assignees party of the second part

Whereas

- a) C-DAC has designed and developed India's first supercomputer and also has been engaged in creating quality manpower in IT by way of Education and Training through its Advanced Computing Training School (ACTS), Pune, herein after referred to as C-DAC ACTS, Pune.
- b) Whereas C-DAC ACTS, Pune has developed the expertise in design, management and delivery of education & training programmes and services, in Information & Communication Technology (ICT) and related areas.
- c) AND Whereas TINJRIT conducts Graduate degree courses in Engineering.
- d) And whereas the TINJRIT is desirous of providing high-end trainings Courses, of C-DAC courses in its institute and has therefore approached and requested C-DAC for providing training of the said courses.
- e) And whereas after discussions between the parties, both the parties have agreed to enter in to this Memorandum understanding on the following terms and conditions :



/ responsible for quality of teachers / faculty of TINJRIT/ overall delivery of the course / module by TINJRIT. C-DAC does not give any placement assurance to the students. C-DAC will provide placement assistance. However, if any offer of appointment is issued by any organization/employer to the student, as a result of placement assistance provided by C-DAC or otherwise, such offer will be a transaction governing only the employer and that offeree student and C-DAC shall not be responsible/liable for any act/omission of either such employer or student. This clause may be brought to the notice of all students by TINJRIT before taking admission to the courses.

2. Responsibilities of TINJRIT

1. TINJRIT shall abide by the norms and guidelines set for TINJRIT for individual approved courses stipulated by C-DAC ACTS, Pune from time to time.
2. TINJRIT shall conduct different courses as per available resources from the list of authorized courses, in consultation with C-DAC ACTS.
3. TINJRIT shall ensure a minimum of forty (40) number of participation per course. It is not feasible to run the course with less number of students. However in case if it is required to run the course then the fees shall be enhanced as per the sole discretion of CDAC ACTS.
4. TINJRIT shall provide the infrastructure viz. computers, Class Room / Lab space, with tables and chairs to accommodate a batch of 40 participants, glass / white board with felt pens / markers along with the adequate power and suitable environment conditioning for the conduct of courses. TINJRIT shall upgrade computing facilities and other infrastructure from time to time as per instructions of C-DAC.
5. TINJRIT shall provide the 25 number of computers of stated Pentium 4 Intel with required configuration for the conduct of this course together with the required software having valid license and operating environment for the entire duration of the courses.
6. TINJRIT shall make available training center, with all facilities and required manpower and material resources to C-DAC for various events like conduct of the Common Admission Tests or any other examinations / Seminars / workshops /

conferences / training programmes or any other events conducted / coordinated / organized by CDAC ACTS, Pune.

7. TINJRIT shall be responsible for the procurement and distribution of the prescribed course material to each and every student before commencement of course / module from C-DAC, ACTS.
8. TINJRIT shall coordinate and cooperate in the overall functioning of the centre including marketing, advertisement and promotion and publicity, selection and admission process, academic management, materials management, infrastructure management and maintenance as per the norms and guidelines for various approved courses as stipulated by C-DAC, ACTS, Pune from time to time.
9. TINJRIT shall advertize/publicize the courses as per the norms and guidelines for the advertisement, publicity, promotion and marketing stipulated by C-DAC ACTS, Pune from time to time. TINJRIT shall bear and pay the expenses of advertisement /publicity.
10. The design and contents of any public announcement or of publicity material shall be displayed/published/circulated subject to written approval of C-DAC.
11. TINJRIT shall not publish or use any misleading or deceptive advertising material. In the event of any such advertisement being published, TINJRIT shall be liable for legal action including immediate termination of this MOU without any notice, action for damages and injunction.
12. TINJRIT shall ensure that all the services, systems, facilities are operational all the time and the instructional material is updated from time to time.
13. TINJRIT shall also provide the proper and adequate place for the faculty to sit and interact with the participants.
14. TINJRIT shall provide the loading and boarding facility to the faculty member if faculty is provided by C-DAC ACTS.
15. TINJRIT shall undertake to send the final list of participants of each IT course 7 days before commencement of the course.
16. TINJRIT shall recognize the ownership of the course material and other intellectual property provided by C-DAC and shall not do anything that would diminish or dilute

the distinctiveness, validity, quality and standard of the C-DAC material much to the detriment of C-DAC's name and interest

17. TINJRIT shall direct each student to pay the fees as per the guideline / instructions given by C-DAC ACTS, Pune from time to time. All fees and other charges collected by the TINJRIT shall be forwarded to C-DAC immediately as per the mode of payment described hereunder. In the event the fees are collected by the TINJRIT and the same are not forwarded to C-DAC ACTS, Pune, C-DAC ACTS, Pune shall have no legal, financial or any other liability and responsibility towards the students or for conducting course/tests, certifying them etc. The liability and responsibility arising out of such cases will be exclusively to the account of and shall be borne by the TINJRIT. In case of any legal action taken by the students/parents/guardians regarding and related to conducting courses tests, evaluation and certification etc., against CDAC the same shall be defended by C-DAC at the cost and consequences of TINJRIT
18. TINJRIT shall monitor the attendance, performance, feedback, participation of every student and guide them whenever necessary
19. TINJRIT shall submit from time to time to C-DAC ACTS, Pune the requested information in the prescribed format.
20. TINJRIT shall inform C-DAC ACTS, Pune well in advance, in writing, any changes in the ownership, management, location and control of the TINJRIT within 30 days of such change.
21. TINJRIT do all such things related to the smooth and effective delivery of courses and workshops as are necessary or as advised and instructed by C-DAC ACTS, Pune from time to time.

3. **Commencement, Duration and Termination:**

This MoU shall be effective from the date of the signatures on this MOU and shall be valid till 12 JUNE 2017. It shall automatically expire on the date mentioned herein i.e. 12/6/17. Prior to expiry, the MOU can be terminated with immediate effect if party of second part fails to cure/rectify/remedy within 7 days from the day, the defect/deficiency/breach is pointed out by C-DAC.

This MOU may be renewed / extended in writing and signed by both the parties as per norms, guidelines stipulated by C-DAC, ACTS, Pune from time to time and for such further period and on such terms & conditions as may be mutually agreed upon by both the parties in writing and subject to payment of all earlier dues and resolving of all earlier disputes (if any) and payment of the applicable fees prescribed by C-DAC, ACTS, Pune from time to time.

The actual commencement of courses shall take place only on the compliance by TINJRIT as to its responsibilities relating to infrastructure, fees, list of students, etc.

4. Termination:

Without prejudice to the rights of C-DAC as mentioned in para 3 above Either party can terminate this MOU by one month's written notice sent by RPAD to the other party .

C-DAC shall also be entitled to terminate this contract with immediate effect in case of breach of any clause mentioned in this MOU or any changes in the ownership or, management or, approved premises or control of the TINJRIT, Udaipur. C-DAC ACTS, Pune decision in such matter shall be final and binding on the TINJRIT, Udaipur. Parties can terminate this MOU for convenience also, by prior one month's notice in writing sent by RPAD to other party.

5. Effect of Termination:

- a. Upon Termination of the contract for any reason what so ever, the TINJRIT shall stop forthwith using or associating with the C-DAC ACTS Pune instructional material, using the name, logo, tradename, trademark of C-DAC ACTS in its announcements, advertisements, correspondence or any other documentation and settle its financial obligations immediately to C-DAC ACTS Pune The TINJRIT shall also return forthwith at its own cost any material obtained from C-DAC, ACTS Pune.
- b. TINJRIT shall not have any claim of refund in part or full, of any fees already paid

- c. It will however be ensured by both the parties that the course currently underway be duly completed by way of fulfilling respective responsibilities of the parties.

6. Courses Offered

Following courses have been designed by C-DAC which shall be conducted at TINJRIT, Udaipur. The duration and schedule of the **Certificate Courses** will be laid out eight hours in vacations or as per the convenience of TINJRIT and C-DAC ACTS mutually.

• Certificate Courses

S. No.	Name of the course	No. of Hours
1.	C-DAC Certificate Course in Software Testing	320 hours
2.	C-DAC Certificate Course in MS.NET Programming	320 hours

Syllabus of Courses is attached as Annexure: I

7. Course Fees and Sharing Mechanism:

7.1 The Course fees for the C-DAC Certified courses is Rs. 25,000/- per participant (Rupees Twenty five thousand only). The course fees are exclusive of service tax.

7.2 Sharing of fee between C-DAC ACTS and TINJRIT, Udaipur shall be as follow:

1. C-DAC ACTS : 75%
2. TINJRIT : 25%

7.3 In the case all the faculty members provided by TINJRIT as per the norms and conditions of C-DAC ACTS the additional 15% of the fees will be added to the share of TINJRIT. In case there is a mix of faculty member for C-DAC ACTS as well as TINJRIT then distribution will be done on the basis of number of hours assigned to C-DAC ACTS and TINJRIT faculties.

7.4 TINJRIT shall pay 100 % to C-DAC by Demand Draft in favour of "C-DAC-ACTS", payable at Pune, 07 days prior to the commencement of the courses.

7.5 C-DAC ACTS can add / modify / delete any training program, its period or its fees, if required or observed through the students/industry of faculty feedback anytime during the period of this MOU.

7.6 All taxes, duties, cess, levis etc. shall be additional and borne / paid by TINJRIT.

8. Correspondence

E-mail correspondence should not be taken as substitute for any official signed hardcopy correspondence in all important documents such as but not limited to financial and performance related documents.

9. Intellectual Property:

TINJRIT specifically agrees that all the Intellectual Property Rights to and in the course content, course name, syllabus, methodology, assignment, question papers, website content, are and shall be the exclusive Intellectual property of C-DAC and TINJRIT shall not:

- a. Reproduce in any form, make any modifications, alterations therein or deletions therein
- b. Make any copies, permit or cause to permit to publish or cause to be published
- c. Circulate it to others not concerned or not provided for by this MOU or commercially exploits it,
- d. Mix or utilise it with the others courses of other party if same are permitted hereunder.
- e. Adopt ,formulate any part /portion thereof, use any other trade mark or logo or trade name for it
- f. Do any such thing as would diminish or dilute the distinctiveness, validity, quality and standard of C-DAC ACTS to the detriment of the C-DAC's name and interest
- g. Prejudice its confidentiality

- h. Use / transfer / license / sublicense / copy / circulate / reproduce / distribute in violation/excess of permission given under this MOU, any intellectual property arising out of or incidental to or related to this MOU signed between C-DAC and second party
- i. TINJRIT further agrees to sign application, affidavit, declaration, deeds and/or any document if required to protect/gain/acquire the ownership of CDAC ACTS in any and all Intellectual Property arising out of/ related to this MoU

10. Use of C-DAC's trademark and logo:

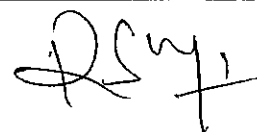
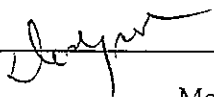
TINJRIT may use C-DAC ACTS's name only for the purpose of identifying the C-DAC training activity and shall not use, or be entitled to use, C-DAC's or C-DAC ACTS's name, trademarks, logos, trade name or any other intellectual property in any other way without the prior written consent or as may be authorized under a separate written consent. Upon termination by efflux of time, or prior determination thereof as provided for herein, of this MoU TINJRIT shall immediately stop using C-DAC's or C-DAC ACTS's name, trademarks, trade name and logos, etc. as also the C-DAC ACTS's educational and training material.

11. Indemnification.

TINJRIT agrees to indemnify and keep indemnified C-DAC, its representatives, agents, employees, successors and assigns harmless against all losses, damages or expenses of whatever form or nature, including, without limitation, attorney's fees and costs and costs of appeals, whether direct or indirect, which they or any of them may sustain or incur as a result of any acts or omissions of TINJRIT or any of its representatives, agents or employees including but not limited to any breach of this MoU or otherwise in writing, or any violation thereof of any applicable law, or regulation or order.

12. Independent operations:

The parties to this contract are independent institutions and not the employee, representative or the agent of the other. None of the party has the power to bind or commit the other party for any obligation, liability, the other incurs and hereby agrees to indemnify and keep saved and indemnified the other from the same.



13. Force Majeure:

Neither party to this MOU shall be liable to the other party for any delay or failure on its part in performing any of its obligations under this MOU resulting from any cause beyond its reasonable control, including but not limiting to strikes, riots, civil commotion, or other concerted actions of Workmen, material shortages, fire, floods, explosions, acts of God, acts of state, war, enemy action or terrorist action etc.

14. Disputes and Jurisdiction:

Any Disputes arising out of this MOU or in connection of this MOU between the two parties shall in the first place be settled by mutual negotiations between the person appointed by C-DAC and head of TINJRIT, Udaipur and their decision shall be final and binding on both the parties.

If any dispute is not resolved by mutual negotiations then the dispute shall be referred to the Sole Arbitrator appointed by C-DAC. The Arbitration Proceedings shall be held in Pune and the decision of the Arbitrator shall be final and binding on both the parties. The Arbitration Proceedings shall be in English language only. The Arbitration and Conciliation Act, 1996 will be applicable to the proceedings.

This MOU will be governed by laws of India only and courts in Pune only shall have exclusive jurisdiction to try entertain and decide the disputes arising in respect of this MOU

15. Amendment to MoU

The MoU cannot be modified or amended except by a written document signed by each of the parties hereto.

16. Assignment and Transfer

Any and all rights, duties and obligations of TINJRIT and C-DAC under this MoU shall not be transferred or assigned by either party to any third party without prior written consent of the other party.

17. NON WAIVER:

The failure or neglect by either of the Parties to enforce any of the terms of this MOU shall not be construed as a waiver of its rights preventing subsequent enforcement of such provision or recovery of damages for breach thereof.

18. Severability:

The invalidity or unenforceability of any provision of this MOU shall not affect the validity or enforceability of any other provision of this MOU that shall continue in full force and effect except for any such invalid and unenforceable provision.

19. Limitation of Liability:

In no event C-DAC shall be liable to the other for any incidental, consequential, special, and exemplary or direct or indirect damages, or for lost profits, lost revenues, or loss of business arising out of the subject matter of this MOU, regardless of the cause of action, even if the party has been advised of the likelihood of damages

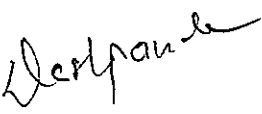
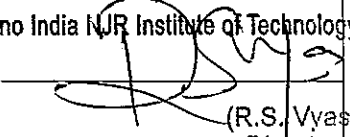
20. Headings:

The headings shall not limit, alter or affect the meaning of the Clauses headed by them and are solely for the purpose of easy reference.

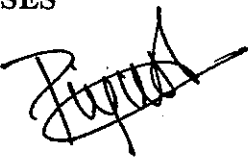
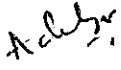
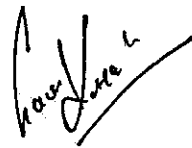
21. Entire MOU:

This MoU, sets forth the entire understanding of the Parties with respect to the subject matter hereof, and supersedes all prior oral and written agreements, understandings, representations, conditions and all other communications relating thereto.

In witness whereof, this MOU has been executed by the authorized signatory of C-DAC on behalf of C-DAC and by the authorized signatory of the TINJRIT, Udaipur on the date, month and year mentioned first herein above.

For and on C-DAC	For and on TINJRIT
behalf of	behalf of
<i>Signature</i>	<i>Signature</i>
	
<i>Name:</i>	<i>Name:</i>
र. य. देशपांडे / R. Y. Deshpande कुलसचिव / Registrar प्रगत संगणन विकास केंद्र CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING पुणे, भारत / Pune, India	For Techno India NJR Institute of Technology (R.S. Vyas) Director
<i>Designation:</i>	<i>Designation:</i>



WITNESSES Signature Omnew Name: <u>Ashish Kuvellkar</u> Designation: <u>Associate Director & HoD</u>	WITNESSES Signature  Name: <u>Piyush Javeria.</u> Designation: <u>Asst. Professor</u>
WITNESSES Signature  Name: <u>Aditya Kumar Sinha</u> Designation: <u>Principal Technical officer</u>	WITNESSES Signature  Name: <u>Gaurav Kumar</u> Designation: <u>Asst. Professor</u>

Annexure I Syllabus of Courses**Track B (Software Development & Testing)****Course 1. Software Testing**

Sl. No.	Module Name	Hours
1	Fundamentals of Computer & OS Concepts	20
2	C Programming	30
3	Software Development Life Cycle	10
4	OOP with C++ with DS	40
5	Database Technology	20
6	Software Testing – Manual	50
7	Software Testing – Automation	50
8	Management Development Program	60
9	Project	40
Total		320

Eligibility: Any Engineering /Science graduate with mathematics up to 10+2 level

Course Pre-requisites: Sound knowledge of Computing Fundamentals and Fundamentals of Programming.

Course Focus: The objective of this course is to provide essential knowledge of programming and expertise in Testing. Students who will complete this course can work in software testing.

Detailed Syllabus**Fundamentals of Computer & OS Concepts (20 Hours)**

- Computer Fundamental: Uses of Computer, Hardware, Accessories,
- Types of computer
- Hardware and Software
- Operating System
- Process Management
- Threads
- Process Scheduling
- Memory Management
- Virtual Memory
- Input Output Management
- File Management
- Deadlocks

- Inter-process Communication
- Classification of Computers
- Introduction to windows operating systems
- The desktop, The window, application window, document window, Dialog Window
- The Icons, Explore Your Computer, The Start Button and Taskbar.
- My Computer, Windows Explorer, Starting and Closing Programs,
- Installing Operating System
- Performing a New Installation for Windows
- Installing a Software other than OS
- Setting up a printer
- Uninstalling software

C Programming (30 Hours)

- Introduction to Programming Language
- C Fundamentals
- Operators and Expressions
- Data Input and Output
- Control statement
- Functions
- Arrays
- Pointers
- Structures and Unions

Software Development Life Cycle (10 Hours)

- Software: A Process
- Various Phases in s/w Development
- Software life cycle agile model
- Introduction to Coding Standards

OOP with C++ with DS (40 Hours)

- OOP concepts
- Programming constructs
- Functions
- Access Specifiers
- Classes and Objects
- Overloading
- Inheritance
- Polymorphism
- Templates

Database Technologies (20 Hours)

- Introduction to DBMS
- Introduction to Oracle
- SQL* Plus
- DDL, DML and DCL
- Tables, Indexes and Views
- PL/SQL
- Cursors
- Stored Procedures
- Triggers

Software Testing – Manual (50 Hours)

Software Testing Fundamentals, Importance of Testing, Term and modification of testing, Fundamental Test process, Types of testing, Life cycle of testing, Introduction to Tested application, Essentials of Testing, Economics of testing, Fundamentals of Quality, Test management, Testing concepts and fundamentals, Testing Principles and Fundamentals, Testing Approaches- Black box Testing (Black Box testing Techniques), White Box Testing (White Box Testing), Testing Technique –Static Testing, Dynamic testing, Testing Process, Test Planning, Administrative Plan, Risk management, Test Focus, Test Objectives, Test Strategy, The Build Strategy, Problem management and Control, Test case Design, “V” Model and levels of testing, Unit Testing, Integration Testing, Bottom Up, Top Down, Big bang, Sandwich, System testing, GUI, Usability, Configuration, Compatibility, Availability, Reliability, Installation, System Integration Testing, User Acceptance Testing, Alpha Testing, Beta testing, Testing Types, Functional testing, Structure Testing, Specialized Testing, Planning Your TEST efforts

Software Testing – Automation (50 Hours)

Test Plan, Test Design, Writing Test cases, Test procedures, Test data, Defect Management – Using Test Director, Test Reports, Problem management, Change Management, Measuring the Success/Test Metrics and defect Life cycle, Automated Testing and Tools, Automated Vs Manual Testing, Benefits of Automation, Types of Test case Management Tools, Automation Tools, Defect Management Tools, Test Director (Test Case Management Tool), Creating a New Project, Creating a Test Plan, Designing Tests, Running Tests, Tracking Defects, Win Runner (Automation Testing Tool), Introducing Win Runner, Setting Up the GUI Map, Recording Tests, Synchronizing Tests, Checking GUI Objects, Checking Bitmaps, Programming Tests with TSL
Creating Data, Reading Text, Creating Batch Tests, Maintaining Your Test Scripts

Management Development Program

Introduction to communication, Barriers to communication, Kind of communication, Confidence building Non-verbal Communication, Fluency and vocabulary, Synonyms, Antonyms, Grammar, Noun Pronoun, Verb, Adjective, Preposition, Conjunction, Words of Idioms & phrases, Sentence Construction, Fill up the blanks, Pronunciation, Conversation practice, Polite Conversation, Greeting, Logical reasoning, General Aptitude, Writing: Covering letter, Resume, Email, Presentation Skill, group discussion, Interview skills, Mock interview

Project