QUALIFICATION FILE–Standalone NOS

Introduction to Cloud Based Robotics Solutions Development

☐ Horizontal/Generic ☐Vertical/Specialization

☐ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT ☐ For ToA

☐General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☒ Future Skills ☒ OEM

NCrF/NSQF Level: 3.5

Submitted By:

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Section 1: Basic Details

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<tr><td>2.</td><td>Sector/s</td><td colspan="2">Electronics</td></tr>
<tr><td>3.</td><td>Type of Qualification ☒ New ☐ Revised</td><td>NQR Code & version of the existing /previous qualification: NA</td><td>Qualification Name of the existing/previous version: NA</td></tr>
<tr><td>4.</td><td>National Qualification Register (NQR) Code & Version</td><td>NG-3.5-EH-02642-2024-V1-NIELIT</td><td>5. NCrF/NSQF Level: 3.5</td></tr>
<tr><td>6.</td><td>Brief Description of the Standalone NOS</td><td colspan="2">The program “Introduction to Cloud Based Robotics Solutions Development” has been designed collaboration with GROK Learning Pvt. Ltd. The standalone NOS equips students with the skills and knowledge to tackle real-world challenges and unleash their creativity in robotics. Through a series of engaging activities and hands-on projects, students explore the fundamental principles and practical applications of robotics technology. Leveraging innovative tools such as Circuit Designer and Block Designer, students gain proficiency in designing, programming, and controlling robotic systems.</td></tr>
<tr><td>7.</td><td>Eligibility Criteria for Entry for a Student/Trainee/Learner/Employee</td><td colspan="2">a. Entry Qualification &Relevant Experience:
<table>
<tr><th>S. No.</th><th>Academic/Skill Qualification (with Specialization - if applicable)</th><th>Relevant Experience (with Specialization - if applicable)</th></tr>
<tr><td>1</td><td>1st year of 3-year diploma after 10th in Electronics and Commutation Engineering/ Electrical Engineering/ Computer Science/ Information Technology/ allied branches</td><td>NA</td></tr>
<tr><td>2</td><td>11 or equivalent</td><td>NA</td></tr>
<tr><td>3</td><td>10th grade pass and pursuing continuous schooling</td><td>NA</td></tr>
<tr><td>4</td><td>8th grade pass with two years of NTC plus 1 year NAC/CITS</td><td>NA</td></tr>
</table></td></tr>
</table>

		5 | NSQF Level 3 in Electronics and Commutation Engineering/ Electrical Engineering/ Computer Science/ Information Technology/ allied branches with | 1.5 year relevant experience **b. Age:** 18
8.	**Credits Assigned to this NOS-Qualification, Subject to Assessment** *(as per National Credit Framework (NCrF))*	**2 Credits** **9. Common Cost Norm Category (I/II/III)** *(wherever applicable)***:** **Category- I**
10.	**Any Licensing Requirements for Undertaking Training on This Qualification** *(wherever applicable)*	The open source resources can be used. Annual subscription-based license to access IoT based cloud infrastructure may also be purchased.
11.	**Training Duration by Modes of Training Delivery** *(Specify **Total Duration** as per selected training delivery modes and as per requirement of the qualification)*	☒ **Offline** ☐ **Online** ☐ **Blended** **Training Delivery Mode** | **Theory (Hours)** | **Practical (Hours)** | **Total (Hours)** **Classroom (offline)** | **15** | **45** | **60** The mode of delivery shall be based on the regional demand and can be offered in any of the above modes mentioned.
12.	**Assessment Criteria**	**Theory (Marks)** | **Practical (Marks)** | **Project (Marks)** | **Viva (Marks)** | **Total (Marks)** | **Passing %age** 100 | 60 | 20 | 20 | 200 | 50 The centralised online assessment is conducted by the Examination Wing, NIELIT Headquarters.

13.	**Is the NOS Amenable to Persons with Disability**	☒ **Yes** ☐ **No** **If "Yes", specify applicable type of Disability:** **a.** Locomotor Disability: Leprosy Cured Person, Dwarfism, Muscular Dystrophy and Acid Attack Victims **b.** Visual Impairment: Low Vision	
14.	**Progression Path After Attaining the Qualification, wherever applicable**	Industrial Robotics Developer/senior Robotics Developer	
15.	**How will the participation of women be encouraged?**	Participation by women can be ensured through Government Schemes. Occasionally, exclusive batches for women would be run for the proposed courses. Funding is available for women's participation under other schemes launched by the Government from time to time.	
16.	**Other Indian languages in which the Qualification & Model Curriculum are being submitted**	Qualification files available in English & Hindi Language.	
17.	**Is similar NOS available on NQR-if yes, justification for this qualification**	☐**Yes** ☒ **No**	
18.	**Name and Contact Details Submitting / Awarding Body SPOC** *(In the case of CS or MS, provide details of both Lead AB & Supporting ABs)*	**From NIELIT** Name: Saket Saurabh Email: srv.saket@nielit.gov.in Contact No: 011-25308300 Website: https://nielit.gov.in/ **From NIELIT** Name: Grok Learning Email: enquiry@grokstem.com	
19.	**Final Approval Date by NSQC: 30.05.2024**	**20. Validity Duration: 3 years**	**21. Next Review Date: 30.05.2027**

Section 2: Training Related

1.	**Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)**	B.E./B.Tech in Mechanical/Electrical/Electronics/IT/Comp. Sc. with an experience of 1 years in Robotics/Automation and 1 Year of experience in teaching. Diploma in Mechanical/Electrical/Electronics/IT/Comp.Sc. with an experience of 3 years in Robotics/Automation and 2 Year of experience in teaching.
2.	**Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)**	B.E./B.Tech in Mechanical/Electrical/Electronics/IT/Comp. Sc. with an experience of 2 years in industry and 1 Year of experience in teaching
3.	**Tools and Equipment Required for the Training**	☒ Yes ☐No Available at Annexure-II
4.	**In Case of Revised NOS, details of Any Upskilling Required for Trainer**	Not Applicable

Section 3: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	B.E./B.Tech in Mechanical/Electrical/Electronics/IT/Comp. Sc. with an experience of 2 years in industry and 1 Year of experience in teaching
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines), (wherever applicable)*	The assessor carries out theory online assessments through the remote proctoring methodology. Theory examination would be conducted online and the paper comprises MCQ. Conduct of assessment is through trained proctors. Once the test begins, remote proctors have full access to the candidate's video feeds and computer screens. Proctors authenticate the candidate based on registration details, pre-test image captured and I-card in possession of the candidate. Proctors can chat with candidates or give warnings to candidates. Proctors can also take screenshots, terminate a specific user's test session, or re-authenticate candidates based on video feeds.
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	External Examiners/ Observers (Subject matter experts) are deployed including NIELIT scientific officers who are subject experts for evaluation of Practical examination/ internal assessment / Project/ Presentation/ assignment and Major Project (if applicable). Qualification is generally B.Tech
4.	**Assessment Mode***(Specify the assessment mode)*	Centralized online examination will be conducted

5.	**Tools and Equipment Required for Assessment**	Same as for training ☒ Yes ☐ No

Section 4: Evidence of the Need for the Standalone NOS

1.	Government /Industry initiatives/ requirement (Yes/No): **Yes.**
2.	Number of Industry validation provided: **16**
3.	Estimated number of people to be trained: **1000** persons per year shall be trained.
4.	Evidence of Concurrence/Consultation with Line/State Departments (In case of regulated sectors): No. **NIELIT is recognized as AB and AA under Government Category. NIELIT is an HRD arm of MeitY, therefore, the Line Ministry Concurrence is not required.**

Section 5: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name.

1.	**Annexure:** NCrF/NSQF level justification based on NCrF/NSQF descriptors *(Mandatory)*	*Available at* Annexure-I: Evidence of Level
2.	**Annexure:** List of tools and equipment relevant for NOS *(Mandatory, except in case of online course)*	*Available at* Annexure-II: Tools and Equipment
3.	**Annexure: Industry Validation**	*Available at* Annexure-III: Industry Validation
4.	**Annexure: Training Details**	*Available at* Annexure-IV: Training Details
5.	**Annexure:** Blended Learning *(Mandatory, in case the selected Mode of delivery is Blended Learning)*	*Available at* Annexure-V: Blended Learning
6.	**Annexure/Supporting Document:** Standalone NOS- Performance Criteria Details Annexure/Document with PC-wise detailing as per NOS format (Mandatory- Public view)	*Available at* Annexure-VI: Performance Criteria

7.	**Annexure:** Performance and Assessment Criteria *(Mandatory)*	*Available at* Annexure-VII: Detailed Assessment Criteria
8.	**Annexure:** Assessment Strategy *(Mandatory)*	*Available at* Annexure-VIII: Assessment Strategy
9.	**Annexure:** Acronym and Glossary *(Optional)*	*Available at* Annexure-IX: Acronym and Glossary
10.	**Supporting Document:** Model Curriculum	*Available at* Annexure-C: Model Curriculum

Annexure-I: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	Upon completion of the program, ndividuals will navigate the evolving landscape of Industry 4.0 revolution technology and embark on a rewarding career path in Robotics . The promising roles include: - Robotics Technician - Mechanical Engineer - Design Engineer - Sales Engineer	An efficient Robotics expert with cloud computing knowledge and having variety of skillsets required to solve real world problems faced across industry verticals.	3.5
Professional and Technical Skills/ Expertise/ Professional Knowledge	Effectively apply concepts to build smart robotic solutions for different industries. Develop new use case to address a real-life problem.	Individuals completing this qualification are likely to possess the expertise required for roles in the field of Robotics Applications Development	3.5
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Emphasis on what industries is expecting from them as a skill to build, through applied learning and execution platform to become problem solvers with critical thinking, thought leaders, innovators, and job creators. Ability to transform ideas into real-life solutions using technological tools. Entrepreneurial ability to launch their own business /service.	After completing this program students will be in a better position to fulfill expectations from industry that offers unique opportunities for career development in this exciting field.	3.5

Broad Learning Outcomes/ Core Skill	Individuals with cloud-based Robotics skillset will contribute to organizational success and take up roles in the evolving landscape of Industry 4.0 revolution	This program prepares the candidates to adapt to current industry demands.	3.5
Responsibility	Able to design new IoT applications for different industry verticals and able to manage and maintain existing IoT applications	Takes complete responsibility for delivery and quality of own work and output as also the subordinates. Shares responsibility for the group tasks.	3.5

Annexure II: Tools and Equipment (lab set-up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Classroom	1 (750Sq. ft to 1000 Sq. ft.)	30
2	Students Chair	30	30
3	Students Table	15 (2 students sharing 1 table)	15
4	Desktop computer with accessories / Laptop	Laptop with minimum specifications: Intel I3 or Celeron processor with at least 8GB RAM, 512GB SSD Hard disk integrated with graphics card, Display size 15.6 inch, Wifi connectivity and Wired Optical Mouse.	15
5	Cloud Based IoT Infrastructure	Complete stack comprising of circuit building software,no-code block level programming software, Python editor and knowledge-based modules on IoT content with web application management interface using cloud based IoT services.	Should support multiple concurrent logins.
6	Hardware	Microprocessors and Sensors like IR sensor, Ultrasonic Sensor, Buzzer, Motors, LED module, Weight sensors, Accelerometer, GPS, Gyroscope	15

7	Cloud connected working industry applications	• Activities for different movements of a Robot • Train your Robot to Change Path • Obstruction Detection - Line Following • Train your Robot to find a path through the maze • Train your robot to memorize directions and path • Train your robot to follow a line using PID Controller	5
8	Internet Connectivity	Seamless internet with at least 100Mbps without firewall	

Classroom Aids for offline and blended mode of training:

The aids required to conduct sessions in the classroom are:

1. LCD Projector/Smart Board

Annexure III: Industry Validations/ Government Recognition Summary

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID
1	AISECTLtd.	Teena Panthi	Assistant Manager	1-1-387, 3rd Floor, Flat no. 403/404, GNR Heights, Above SBI, Bakaram Road, Musheerabad, Hyderabad - 500020	7879982075	teena.panthi@aisect.org
2	B G Infotech	Amal Das	Centre Head	Kakdihi, Mecheda, Purba Medinipur	9434996748	bginfotech2007@gmail.com
3	L&T Skill Trainers Academy	Mr. Bhuvan Damahe	Head - Skill Trainers Academy	Madh Campus, Near Custom House, Versova Creek, Madh Jetty, Mumbai -	9833078355	bhuvan.damahe@larsentoubro.com

				400061, Maharashtra, India		
4	M/S.Peleecon Linkers	MILIND R.HEBLI	PROPRIETOR	213,"Krishna",Laxmi Industrial Complex,Pokhran Road No.1,Vartaknagar, THANE – 400 606.	98200 95454	milindhebli66@gmail.com
5	Process Precision Instruments	Jay Jain	Business Development Head	101 Diamond Industrial Estate, Navghar, Vasai Road (E), Palghar401210, Maharashtra	9930880079	jayjain@ppiindia.net
6	PRO PLATERS LLP	Rajesh Dattaram Kesarkar	Partner	PLOT NO. 5, SHIRODA INDUSTRIAL ESTATE, SHIRODA GOA - 403103	922897176	-
7	The Supreme Industries Ltd.	Sudhir Kanvinde	Chief Information Officer (CIO)	1141, 1142 Solitaire Corporate park, Chakala, Andheri (East), Mumbai-400093	9167233494	kanvinde@supreme.co.in
8	BAPL ROTOTECH PVT LTD	Santosh Sharma	Sr. Vice President	Plot 186-B, Industrial Growth Centre, Sector 1Pithampur, Dhar, Madhya Pradesh-454775	8408886301	santosh.sharma@baplrototech.com
9	Lamzing Technologies Private Limited	Allan Malbam	Founder, MD	Software Technology Park of India, G Floor, MIMS Building, Manipur University, Canchlpur, Imphal, Manlpur-795003	9963382225	ailan.maibam@lamzing.com
10	Prasanthi Polytechnic	D Prasad	Principal	Duppituru (Vill), Aichutapuram (Md), Visakhapatnam (Dist), Andhra pradesh _ 531011	9849952573	Prasadreddy.1279@gmail.com
11	Predulive Innovations Pvt. Ltd	Shivanshu Dwivedi	Founder & MD	1596, Avas Vikas Colony Gandhinagar Basti, Uttar Pradesh – 272001	9918443373	shivanshu@predulivelabs.in

12	Jan Samridhi Dumka	Gobind Nath Maji	Director	Dudhani, Dumka, Near Gyan Mandir School-814101	8789620133	Gobind107@gmail.com
13	Sidhi Vinayak Academy	Neha Verma	Director	Shiv Narayan Kunj, B Block, Shivaji Nagar, Hethu, Ranchi (JH)-834002	8789837772	sidhiacadmey@gmail.com
14	Surekha IT Services	Anjani K	Manager	8-3-191/84/302, Sharan Residency, Vengalrao Nagar, Hydrabad-500038, Telangana	8125134134	info@surekhaitservices.com
15	United Computer	Subhasis Choudhury	Chief Executive	Chotonilpur (Pirtala), P.O. Sripally, Burdwan-713103	9641820965	United_computer97@rediffmail.com
16	AAjivika Global Skill Private Limited	Mukesh Kumar Verma	Director	Beside Vishal Trade, dasmile chowk, khunti Road, Ranchi, Jharkhand-835221	9507952882	aajivikaglobal@gmail.com

Annexure IV: Training Details

Training Projections:

Year	Estimated Training # of Total Candidates	Estimated training# of Women	Estimated training# of People with Disability
2024-25	1000	200	20
2025-26	1000	200	20
2026-27	1000	200	20

Data to be provided year-wise for the next 3 years

Annexure V: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:

S. No.	Select the Components of the NOS	List Recommended Tools – for all Selected	Offline: Online

		Components	Ratio
1	Theory/ Lectures - Imparting theoretical and conceptual knowledge	Online interaction platforms like Zoom, Google Meet	00:100
2	Imparting Soft Skills, Life Skills and Employability Skills /Mentorship to Learners	NA	NA
3	Showing Practical Demonstrations to the learners	Online interaction platforms like Zoom, Google Meet	00:100
4	Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	PCs/Laptops, Internet, Cloud based IoT infrastructure using circuit building software, no-code block level programming software, Python direct IDE, knowledge-base modules on IoT content with mobile interface for cloud based remote management of IoT applications	50:50
5	Tutorials/ Assignments/ Drill/ Practice	Online interaction platforms like Zoom, Google Meet	00:100
6	Proctored Monitoring/ Assessment/ Evaluation/ Examinations	Examination	50:50
7	On the Job Training (OJT)/ Project Work Internship/ Candidate Training	Build and demonstrate a new IoT solution for any specific industry vertical based on problem statement	100:00

Annexure VI: Standalone NOS- Performance Criteria details

1. Description

The standalone NOS equips students with the skills and knowledge to tackle real-world challenges and unleash their creativity in robotics. Through a series of engaging activities and hands-on projects, students explore the fundamental principles and practical applications of robotics technology. Leveraging innovative tools such as Circuit Designer and Block Designer, students gain proficiency in designing, programming, and controlling robotic systems

2. Scope

The robotics course offers a comprehensive exploration of key concepts, practical skills, and innovative applications in robotics, covering topics such as robot components, circuit design, and advanced motion control.

3. Elements and Performance Criteria

Problem Solving:

PC1. Develop the ability to devise industry-specific solutions that effectively tackle real-world challenges encountered in robotics applications, demonstrating analytical skills and innovative problem-solving approaches.

Block Programming for Robotics Solution Development:

PC2. Utilize block programming software tools proficiently to write application programs tailored for controlling robots and implementing various functionalities, ensuring ease of implementation and flexibility in program logic.

PC3. Demonstrate proficiency in crafting complex logic and algorithms using block programming techniques to address specific challenges and tasks inherent in robotics applications, fostering creativity and adaptability in solution development.

Foundational Skills in Robotics:

PC4. Acquire a comprehensive understanding of the fundamental principles and concepts underpinning robotics technology, encompassing robot components, sensors, actuators, and microcontrollers, to lay a solid foundation for advanced robotics proficiency.

PC5. Identify and articulate the pivotal role of essential sensors and components in robotics applications, including IR sensors, ultrasonic sensors, motors, microcontrollers, and batteries, and elucidate their functions and significance in enabling robot functionality.

PC6. Design and implement functional circuits tailored for robotics applications using circuit building software, ensuring compatibility with selected sensors and components, and demonstrating proficiency in integrating hardware elements for seamless robotic operation.

4. Knowledge and Understanding (KU):

KU1. Gain insight into the far-reaching impact of robotics across various industries and everyday life contexts, with illustrative examples of robotics applications in healthcare, agriculture, aerospace, and education, fostering an appreciation for the diverse applications of robotic technology.

KU2. Acquire hands-on experience in robotics application development through practical projects that address real-world challenges and opportunities, enabling the application of theoretical knowledge in practical contexts and promoting experiential learning.

KU3. Develop a solid grasp of electronics fundamentals and sensor technology relevant to robotics, encompassing the principles of signal transmission, sensor integration, and actuator control, to facilitate informed decision-making and effective problem-solving in robotics projects.

KU4. Understand the nuances of robotics communication protocols and microcontrollers, including their functionalities and applications in robot control and data transmission, enabling efficient communication and coordination in robotic systems.

KU5. Master programming logic and block programming using Python language, equipping oneself with essential programming skills to develop and optimize robotic applications

5. Generic Skills (GS):

GS1. Cultivate problem-solving abilities to effectively address challenges encountered in diverse industries, such as transportation and security, enhancing adaptability and resilience in navigating complex problem spaces.

GS2. Develop technical proficiency in electronics, programming, and sensor integration, essential for designing and implementing robotic solutions that meet industry-specific requirements and performance standards.

GS3. Foster innovation and creativity in robotics application development, encouraging out-of-the-box thinking and novel approaches to addressing real-world challenges and driving technological advancement.

GS4. Enhance communication skills to effectively convey complex concepts, project requirements, and technical insights to diverse audiences, fostering collaboration, understanding, and knowledge sharing in robotics projects and initiatives.

Annexure VII: Assessment Criteria

Detailed PC-wise assessment criteria and assessment marks for the NOS are as follows:

SNOS Name	Assessment Criteria for Performance Criteria	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Cloud Based Robotics Solutions Development NOS Code: NIE/ELE/N0601	*Problem Solving*	**10**	**10**	**-**	**-**
	PC1. Ability to build industry solutions that address real Industry challenges.				
	Block Programming for Robotics Solution Development:	**40**	**40**	**20**	
	PC2. Utilize block programming software tools proficiently to write application programs tailored for controlling robots and implementing various functionalities, ensuring ease of implementation and flexibility in program logic.				
	PC3. Demonstrate proficiency in crafting complex logic and algorithms using block programming techniques to address specific challenges and tasks inherent in robotics applications, fostering creativity and adaptability in solution development.				
	Foundational Skills in Robotics	**50**	**10**	**-**	**20**
	PC4. Acquire a comprehensive understanding of the fundamental principles and concepts underpinning robotics technology, encompassing robot components, sensors, actuators, and microcontrollers, to lay a solid foundation for advanced robotics proficiency.				
	PC5. Identify and articulate the pivotal role of essential sensors and components in robotics applications, including IR sensors, ultrasonic sensors, motors, microcontrollers, and batteries, and elucidate their functions and significance in enabling robot functionality.				
	PC6. Design and implement functional circuits tailored for robotics applications using circuit building software, ensuring compatibility with selected sensors and components, and demonstrating proficiency in integrating hardware elements for seamless robotic operation.				

	Total Marks-200	**100**	**60**	**20**	**20**

Annexure VIII: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Assessment of the qualification evaluates candidates to ascertain that they can integrate knowledge, skills and values for carrying out relevant tasks as per the defined learning outcomes and assessment criteria.

The underlying principle of assessment is fairness and transparency. The evidence of the outcomes and assessment criteria. competence acquired by the candidate can be obtained by conducting Theory (Online) examination.

About Examination Pattern:

1. The question papers for the theory exams are set by the Examination wing (assessor) of NIELIT HQS.
2. The assessor assigns the roll number.
3. The assessor carries out theory assessments. Theory examination would be conducted online, and the paper comprise of MCQ.
4. Pass percentage would be 50% marks.
5. The examination will be conducted in English language only.

Quality assurance activities: A pool of questions is created by a subject matter expert and moderated by other SME. Test rules are set beforehand. Random set of questions which are according to syllabus appears which may differ from candidate to candidate. Confidentiality and impartiality are maintained during all the examination and evaluation processes.

Annexure IX: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service, or technology.