

Generative AI for inclusive Digital Participation (Divyangjan)

Unit Code: PWD/N5601

Version: 1.0

NSQF Level: 3

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Description

This unit develops foundational awareness and practical understanding of Artificial Intelligence (AI) including Generative AI (Gen AI) concepts, applications, and tools tailored for Persons with Disabilities (PwD). It focuses on AI enabled accessibility, ethical and responsible use, digital inclusion, workplace readiness, assistive technologies, and pathways to employment or self-employment.

Scope

The scope covers the following :

- Introduction to Artificial Intelligence and Generative AI
- AI for Accessibility and Assistive Technologies & Inclusion
- Digital & Data Literacy for AI and Gen AI
- Ethical, Safe and Responsible Use of AI/Gen AI
- Gen AI Tools for Productivity, Communication & Collaboration
- Gen AI enabled Career Development & Employability
- Entrepreneurship Opportunities using Gen AI

Elements and Performance Criteria

Introduction to Artificial Intelligence & Generative AI

To be competent, the user/individual on the job must be able to:

- PC1.** define Artificial Intelligence and Generative AI in simple terms
- PC2.** identify everyday applications of AI and Gen AI
- PC3.** differentiate between human intelligence, AI, and Gen AI at a basic level

AI for Accessibility, Assistive Technologies & Inclusion

To be competent, the user/individual on the job must be able to:

- PC4.** identify AI-based assistive tools for visual, hearing, locomotor, and cognitive disabilities. Assess right assistive tool based on personal strengths & limitations.
- PC5.** use accessibility features such as speech-to-text, text-to-speech, Optical Character Recognition (OCR), and image recognition
- PC6.** explain how AI improves independence, learning, and workplace inclusion

Digital & Data Literacy for AI & Gen AI

To be competent, the user/individual on the job must be able to:

- PC7.** operate digital devices to access AI/Gen AI tools safely
- PC8.** understand basic data concepts: input, output, storage, and privacy
- PC9.** use the internet responsibly for AI-based services and learning

Ethical, Safe and Responsible Use of AI & Gen AI

To be competent, the user/individual on the job must be able to:

- PC10.** recognize risks such as bias, misinformation, and over-dependence
- PC11.** follow safe digital practices
- PC12.** respect privacy, consent, and intellectual property

Gen AI Tools for Productivity, Communication & Collaboration

To be competent, the user/individual on the job must be able to:

- PC13.** use Gen AI tools for writing, translation, summarization, and presentations

PC14. apply Gen AI to improve productivity in clerical, customer support, content, or data tasks

PC15. use Gen AI-assisted tools professionally for emails, chats, and meetings

Gen AI-enabled Career Development & Employability

To be competent, the user/individual on the job must be able to:

PC16. identify job roles where Gen AI supports work (not replaces people)

PC17. prepare Gen AI-assisted résumés and applications

PC18. explore Gen AI learning platforms and micro-credentials

Entrepreneurship Opportunities using Gen AI

To be competent, the user/individual on the job must be able to:

PC19. identify freelance and small business opportunities using Gen AI

PC20. use Gen AI for market research, branding, and customer engagement

PC21. understand legal and financial basics of AI-enabled self-employment

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Fundamental concepts and terminology of Artificial Intelligence (AI), including automation, machine learning, and computer vision, as applied in common digital systems.
- KU2.** Conceptual distinction between Artificial Intelligence (AI) and Generative Artificial Intelligence (Gen AI), illustrated through assistive AI solutions versus generative platforms such as ChatGPT, Microsoft Copilot, and Google Gemini
- KU3.** Practical application of AI in daily life and workplaces, including voice assistance, device authentication, and personalized recommendations using Alexa, Face Unlock, YouTube, and Netflix.
- KU4.** Application of Generative AI in producing text-based and multimodal content such as summaries, presentations, and structured documents using Chat GPT, Copilot, and Gemini.
- KU5.** Principles of speech recognition and natural language processing in AI systems, demonstrated through Google Voice Typing, Live Transcribe, and voice-interactive platforms.
- KU6.** Working of facial recognition and computer-vision systems based on data and pattern recognition, with contextual awareness of camera-based AI such as SunBot (Smarton).
- KU7.** Functioning of AI-driven recommendation and personalization systems used by digital content and learning platforms.
- KU8.** Scope and application of AI-based assistive technologies for Persons with Disabilities, including navigation and mobility solutions such as TorchIt Saarthi, Smart Saarthi Cane, and Phoenix Vibrating Cane.
- KU9.** Role of digital accessibility tools that enable inclusive access to information, including screen readers and captioning systems such as NVDA, TalkBack, VoiceOver, and Zoom Live Captions.
- KU10.** Use of AI-powered object, text, and scene recognition technologies that support independent functioning of visually impaired users, including Seeing AI, Envision AI, and Google Lookout.
- KU11.** Application of AI-enabled hearing support and noise-filtering technologies that improve speech clarity in communication-intensive environments.
- KU12.** Core AI literacy concepts including data input, processing, output, and pattern recognition as applied in OCR and digitization tools such as Kibo (Trestle Labs).

- KU13.** Core AI literacy concepts including data input, processing, output, and pattern recognition as applied in OCR and digitization tools such as Kibo (Trestle Labs).
- KU14.** Inherent limitations of Gen AI systems, including risks of incorrect, incomplete, or hallucinated outputs and the necessity of human validation.
- KU15.** Ethical considerations in AI systems, including bias, fairness, and transparency, particularly in automated decision-making and facial recognition technologies.
- KU16.** Privacy and data protection risks associated with AI tools such as chatbots and voice assistants, and best practices for safe digital behaviour.
- KU17.** Ethical and social risks specific to Generative AI, including deepfakes, misinformation, and misuse of synthetic media.
- KU18.** Issues related to plagiarism, intellectual property rights, and responsible use of AI-generated content in professional and entrepreneurial contexts.
- KU19.** Principles governing safe, responsible, and accountable use of AI platforms and conversational agents, including consent and transparency.
- KU20.** Application of AI-powered productivity tools such as spell check, voice typing, summarization, and OCR to enhance efficiency and accuracy in workplace tasks.
- KU21.** Use of Generative AI tools for professional drafting of emails, reports, presentations, and workplace documentation using Microsoft Copilot and similar platforms.
- KU22.** Awareness of AI-supported job roles such as data entry, customer support, and accessibility testing, where AI functions as an assistive enabler rather than a replacement.
- KU23.** Understanding of Gen AI-supported roles such as content assistant and prompt operator through applied workplace scenarios using Gen AI platforms.
- KU24.** Role of AI enabled learning and language development platforms in skill enhancement and workplace readiness, including TARA English Language Lab (Alexa-based).
- KU25.** Use of AI-based IVR and conversational systems to support inclusive access to information and learning, including Shravan IVR Audiobook Platform and Aditi AI Chatbot.
- KU26.** Identification of AI-based self-employment and micro-enterprise opportunities such as transcription, digitization, and accessibility services enabled by OCR and speech technologies.
- KU27.** Exploration of Gen AI-based entrepreneurship opportunities including resume writing, content creation, and digital service delivery using Gen AI tools.

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read, understand, and generate AI- and Gen AI-assisted digital content
- GS2.** differentiate between AI-generated and human-created content
- GS3.** communicate effectively using AI-enabled and Gen AI tools
- GS4.** use prompts effectively to get better Gen AI outputs
- GS5.** verify accuracy of AI and Gen AI responses
- GS6.** apply AI tools to solve routine work problems
- GS7.** use assistive AI tools independently for accessibility
- GS8.** work collaboratively using AI-supported digital platforms
- GS9.** manage time and tasks using AI productivity tools
- GS10.** adapt to new AI and Gen AI technologies with confidence

- GS11.** follow ethical and responsible practices while using AI tools
- GS12.** protect personal data and privacy while using chatbots
- GS13.** apply AI tools for job search and career development
- GS14.** identify self-employment opportunities using AI and Gen AI
- GS15.** use AI tools for continuous learning and skill upgradation

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Artificial Intelligence & Generative AI</i>	4	6	-	-
PC1. define Artificial Intelligence and Generative AI in simple terms	-	-	-	-
PC2. identify everyday applications of AI and Gen AI	-	-	-	-
PC3. differentiate between human intelligence, AI, and Gen AI at a basic level	-	-	-	-
<i>AI for Accessibility, Assistive Technologies & Inclusion</i>	5	8	-	-
PC4. identify AI-based assistive tools for visual, hearing, locomotor, and cognitive disabilities. Assess right assistive tool based on personal strengths & limitations.	-	-	-	-
PC5. use accessibility features such as speech-to-text, text-to-speech, Optical Character Recognition (OCR), and image recognition	-	-	-	-
PC6. explain how AI improves independence, learning, and workplace inclusion	-	-	-	-
<i>Digital & Data Literacy for AI & Gen AI</i>	6	8	-	-
PC7. operate digital devices to access AI/Gen AI tools safely	-	-	-	-
PC8. understand basic data concepts: input, output, storage, and privacy	-	-	-	-
PC9. use the internet responsibly for AI-based services and learning	-	-	-	-
<i>Ethical, Safe and Responsible Use of AI & Gen AI</i>	6	8	-	-
PC10. recognize risks such as bias, misinformation, and over-dependence	-	-	-	-
PC11. follow safe digital practices	-	-	-	-
PC12. respect privacy, consent, and intellectual property	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Gen AI Tools for Productivity, Communication & Collaboration</i>	10	16	-	-
PC13. use Gen AI tools for writing, translation, summarization, and presentations	-	-	-	-
PC14. apply Gen AI to improve productivity in clerical, customer support, content, or data tasks	-	-	-	-
PC15. use Gen AI-assisted tools professionally for emails, chats, and meetings	-	-	-	-
<i>Gen AI-enabled Career Development & Employability</i>	4	8	-	-
PC16. identify job roles where Gen AI supports work (not replaces people)	-	-	-	-
PC17. prepare Gen AI-assisted résumés and applications	-	-	-	-
PC18. explore Gen AI learning platforms and micro-credentials	-	-	-	-
<i>Entrepreneurship Opportunities using Gen AI</i>	5	6	-	-
PC19. identify freelance and small business opportunities using Gen AI	-	-	-	-
PC20. use Gen AI for market research, branding, and customer engagement	-	-	-	-
PC21. understand legal and financial basics of AI-enabled self-employment	-	-	-	-
NOS Total	40	60	-	-

National Occupational Standards (NOS) Parameters

NOS Code	PWD/N5601
NOS Name	Generative AI for inclusive Digital Participation (Divyangjan)
Sector	PwD
Sub-Sector	
Occupation	Inclusive AI-Enabled Digital Assistant
NSQF Level	3
Credits	2
Version	1.0
Next Review Date	NA