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**“A 3 day AI workshop on Leveraging Artificial Intelligence for Health and Safety Optimization”**

**Target Audience:** Safety officers, HSE professionals, engineers, data analysts, AI enthusiasts

**Day 1: Introduction & AI Foundations in Health and Safety**

**Objective:** Understand AI fundamentals, its relevance in HSE (Health, Safety, Environment), and identify safety challenges where AI can be applied.

Time	Topic	Description	Method
09:00–09:30	Registration & Welcome	Introduction to workshop objectives	Interactive session
09:30–10:30	Overview of HSE Challenges	Common safety incidents, data collection gaps, reporting challenges	Presentation + discussion
10:30–11:00	Break	—	—
11:00–12:30	AI Fundamentals	ML, Deep Learning, NLP, Computer Vision basics	Lecture + examples
12:30–13:30	Lunch	—	—
13:30–15:00	AI in Health and Safety: Case Studies	Predictive maintenance, incident prediction, risk assessment	Case study discussion
15:00–15:30	Break	—	—
15:30–17:00	Data in Safety Management	Types of data (sensor, incident logs, wearable devices), data quality, preprocessing	Hands-on activity

**Day 2: AI Techniques for HSE Applications**

**Objective:** Learn AI techniques for hazard detection, predictive analytics, and safety improvement.

Time	Topic	Description	Method
09:00–10:30	Predictive Analytics for Incident Prevention	Using AI to forecast risks and accidents	Lecture + demo
10:30–11:00	Break	—	—
11:00–12:30	Computer Vision for Safety	Detect PPE compliance, monitor hazardous zones via cameras	Practical demo + discussion
12:30–13:30	Lunch	—	—
13:30–	NLP for Safety Reports	Analyzing text reports for risk insights	Hands-on exercise

Time	Topic	Description	Method
15:00			
15:00– 15:30	Break	—	—
15:30– 17:00	AI-enabled Wearable Devices	Monitoring worker health, fatigue, exposure to hazards	Demo + group discussion

### Day 3: Practical Implementation & Strategy

**Objective:** Apply AI tools in real scenarios, plan AI integration, and address challenges in adoption.

Time	Topic	Description	Method
09:00– 10:30	AI Tools & Platforms	AI platforms for HSE: Python, TensorFlow, Power BI dashboards	Demo + guided tutorial
10:30– 11:00	Break	—	—
11:00– 12:30	Hands-on Project	Group activity: Predict incidents or detect hazards from sample datasets	Workshop
12:30– 13:30	Lunch	—	—
13:30– 15:00	Risk Mitigation Strategies	Using AI insights to improve safety protocols	Discussion + framework planning
15:00– 15:30	Break	—	—
15:30– 16:30	Challenges & Ethics in AI for HSE	Data privacy, ethical AI, regulatory compliance	Lecture + Q&A
16:30– 17:00	Wrap-up & Certification	Review key learnings, feedback, next steps	Group discussion

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### Key Learning Outcomes

1. Understand AI applications in health and safety.
2. Use predictive analytics for risk management.
3. Apply computer vision and NLP to improve safety monitoring.
4. Integrate AI with wearable devices and IoT for real-time safety insights.
5. Understand ethical, legal, and practical challenges of AI in HSE.

**Instructor:** Mr Suresh Tripathi is a founder of Geosun Pty Ltd an Australian company registered in year 2000 to provide AI corporate training, data center solutions and data pipeline end-to-end cloud platform. He has nearly 25+ years of work experience in digital data analytics integrated with AI and tech platforms. His education qualifications include master degree in Statistics from India, master degree in Geostatistics from Australia and master degree in Geoscience from Australia. He completed his AI certificate courses from Stanford Business School from California and High Impact Leadership from Cambridge University, UK. He has worked in

Australia and US focusing his career on data strategy, tech platforms, and developing in-house training. He has worked with range of industries in Australia and US that include Deloitte, Flybuys, Ambulance Victoria, CFA (Emergencies Services), Avexa, Covance, Avance Clinical (Pharmaceuticals), Intelligen, Commonwealth Bank, Hackett Group (US), Health and Safety Sphera Solutions(US), Vic Government (Environment, water and energy), Waste Management (US), Outfront Media (US), Adani Mining (Australia) and Fura Gems Industries (Dubai).

**Fee:** Rs 50,000 per participant plus GST payable to GeosunAI Tech Cloud Pvt Ltd. RTGS/Cheque/ PhonePe via below link form.

Bank: Punjab National Bank

Account Name: NB, GeosunAI Tech Cloud Pvt Ltd

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