



**Pune Knowledge Cluster (PKC) in collaboration with IBM India  
Software Labs (ISL) presents  
Course with Hands-on Training:  
Artificial Intelligence and Machine Learning in Cyber Security**

<b>Organized By</b>	Pune Knowledge Cluster (PKC)
<b>In collaboration with</b>	IBM India Software Labs (ISL)
<b>Date</b>	Start Date: 28 <sup>th</sup> February 2022 End Date: 04 <sup>th</sup> April 2022
<b>Registration deadline</b>	21st February 2022
<b>Location</b>	The course will be conducted on an online platform
<b>Course Duration</b>	11 online sessions (2 sessions per week: Monday and Thursday )
<b>Course Description</b>	<p>Artificial Intelligence (AI) and Machine Learning (ML) can quickly analyse the huge size of data and events from different sources to identify various types of threats which brings a completely new dimension to this era of advanced Cyber Security. AI and ML together can be used effectively to keep up with cyber criminals helping in automatic detection and response to different threat vectors.</p> <p>This online course will consist of lectures by IBM Security experts and will include theory along with hands-on sessions.</p>
<b>For whom</b>	<ul style="list-style-type: none"><li>● BE/B.Tech CS/IT/E&amp;TC 3<sup>rd</sup> and 4<sup>th</sup>-year students</li><li>● BCS Final year/MCS/MCA students</li><li>● BSc Final year/MSc - CS/IT students</li><li>● Other equivalents Bachelor's degrees in CS/IT</li><li>● Working IT professionals</li></ul>
<b>Potential Gains</b>	<ul style="list-style-type: none"><li>● Participants will be skilled to become security intelligence professionals capable of consolidating event logs and packets of data from network/different end-points to detect, identify and respond to threats</li><li>● Participants will be introduced to IBM's industry-leading Security Intelligence solutions viz. IBM QRadar SIEM and Cloud Pak for Security (CP4S)</li><li>● Post course completion, participants would also be able to complete self-paced learnings and apply for different digital accreditations provided by IBM's Advanced Security Learning Academy.</li></ul>



<b>Trainers</b>	<ul style="list-style-type: none"> <li>● Ashish Kothekar, Cyber Security Consultant in IBM</li> <li>● Boudhayan Chakrabarty, Technical Specialist, IBM</li> <li>● Bubai Maity, Cyber Security Consultant in IBM</li> <li>● Praphullachandra Sharad Mujumdar, Security Consultant in IBM India Software Lab</li> <li>● Prateek Jain, Security Specialist, IBM</li> <li>● Shreya Mishra, Advanced Threat Support Engineer, IBM</li> <li>● Stuti Gupta, Advanced Threat Squad Lead in IBM India Software Lab</li> <li>● Vikram Khopade, IBM Software Engineer</li> <li>● Jenson John, Security Consultant</li> <li>● Savani Shetye, Advanced Threat Support Engineer</li> <li>● Sheona Sinha, Advanced Threat Consultant</li> <li>● Jashin Kumar, Advanced Threat Support Engineer</li> </ul>																		
<b>Hardware Requirements for the Course</b>	<p>Candidates MUST have a computer with the following configuration for the course</p> <ul style="list-style-type: none"> <li>● RAM: 16 GB</li> <li>● HDD: 500 GB (SSD preferred)</li> <li>● CPU Core: 8-12 logical core</li> </ul>																		
<b>Course Prerequisites</b>	<p>PRE-WORK: It is strongly advised that candidates orient themselves with the topic by following the below mentioned FREE online pre-work sessions:</p> <table border="1" data-bbox="527 1083 1555 1682"> <thead> <tr> <th>Course Link</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td><a href="https://www.udemy.com/course/certified-secure-netizen/">https://www.udemy.com/course/certified-secure-netizen/</a></td> <td>1 hour 10 mins</td> </tr> <tr> <td><a href="https://www.udemy.com/course/security-awareness/">https://www.udemy.com/course/security-awareness/</a></td> <td>40 mins</td> </tr> <tr> <td><a href="https://www.udemy.com/course/certified-security-analyst-training-preview/">https://www.udemy.com/course/certified-security-analyst-training-preview/</a></td> <td>1 hour 10 mins</td> </tr> <tr> <td><a href="https://www.udemy.com/course/cyber-security-the-ultimate-beginners-handbook/">https://www.udemy.com/course/cyber-security-the-ultimate-beginners-handbook/</a></td> <td>2 hours</td> </tr> <tr> <td><a href="https://www.udemy.com/course/internet-security-guide/">https://www.udemy.com/course/internet-security-guide/</a></td> <td>2 hours</td> </tr> <tr> <td><a href="https://www.udemy.com/course/introduction-to-network-and-network-security/">https://www.udemy.com/course/introduction-to-network-and-network-security/</a></td> <td>1 hour 10 mins</td> </tr> <tr> <td><a href="https://www.udemy.com/course/cyber-security-fundamentals/">https://www.udemy.com/course/cyber-security-fundamentals/</a></td> <td>2 hours</td> </tr> <tr> <td><a href="https://www.udemy.com/course/soc-essentials/">https://www.udemy.com/course/soc-essentials/</a></td> <td>1 hour 10 mins</td> </tr> </tbody> </table>	Course Link	Duration	<a href="https://www.udemy.com/course/certified-secure-netizen/">https://www.udemy.com/course/certified-secure-netizen/</a>	1 hour 10 mins	<a href="https://www.udemy.com/course/security-awareness/">https://www.udemy.com/course/security-awareness/</a>	40 mins	<a href="https://www.udemy.com/course/certified-security-analyst-training-preview/">https://www.udemy.com/course/certified-security-analyst-training-preview/</a>	1 hour 10 mins	<a href="https://www.udemy.com/course/cyber-security-the-ultimate-beginners-handbook/">https://www.udemy.com/course/cyber-security-the-ultimate-beginners-handbook/</a>	2 hours	<a href="https://www.udemy.com/course/internet-security-guide/">https://www.udemy.com/course/internet-security-guide/</a>	2 hours	<a href="https://www.udemy.com/course/introduction-to-network-and-network-security/">https://www.udemy.com/course/introduction-to-network-and-network-security/</a>	1 hour 10 mins	<a href="https://www.udemy.com/course/cyber-security-fundamentals/">https://www.udemy.com/course/cyber-security-fundamentals/</a>	2 hours	<a href="https://www.udemy.com/course/soc-essentials/">https://www.udemy.com/course/soc-essentials/</a>	1 hour 10 mins
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<b>Number of Seats</b>	Seats are limited to 45																		
<b>Registration Fees</b>	INR 2000 per candidate																		
<b>PKC Contact information</b>	capacitybuilding@pkc.org.in 8208728667																		



## Course Schedule

<b>“Artificial Intelligence and Machine Learning in Cyber Security”</b>				
<b>IBM and PKC</b>				
<b>Sr.No</b>	<b>Topic</b>	<b>Speaker 1</b>	<b>Speaker 2</b>	<b>Date</b>
<b>Day 1</b>	Overview of Cyber Security	Boudhayan Chakrabarty	Vikram Khopade	28-Feb
<b>Day 2</b>	Cyber Security Vulnerabilities and Cyber Security Safeguards	Ashish Kothekar	Shreya Mishra	3-Mar
<b>Day 3</b>	Securing Web Application, Services, and Servers:	Praphullachandra Mujumdar	Prateek Jain	7-Mar
<b>Day 4</b>	Intrusion Detection and Prevention:	Prateek Jain	Jenson John	10-Mar
<b>Day 5</b>	Introduction to Artificial Intelligence and Machine Learning in Cyber Security	Bubai Maity	Savani Shetye	14-Mar
<b>Day 6</b>	Introduction to Cloud and Cloud Security	Vikram Khopade	Sheona Sinha	17-Mar
<b>Day 7</b>	Security Information Event Monitoring(SIEM): Basics	Jenson John	Savani Shetye	21-Mar
<b>Day 8</b>	SIEM basic:- IBM Qradar SIEM introduction	Stuti Gupta	Shreya Mishra	24-Mar
<b>Day 9</b>	IBM Qradar SIEM intermediate	Jashin Kumar	Stuti Gupta	28-Mar
<b>Day 10</b>	IBM Qradar SIEM advanced with applied AI & ML	Sheona Sinha	Praphullachandra Mujumdar	31-Mar
<b>Day 11</b>	IBM CloudPak for Security	Ashish Kothekar	Boudhayan Chakrabarty	4-Apr



## Speaker Profiles –



Profile of the speakers/trainers	
<b>Ashish Kothekar</b> Cyber Security Consultant in IBM	Ashish Kothekar is working as a CyberSecurity Consultant at IBM. He has worked on Monitoring and Intrusion Prevention solutions and is currently working on SIEM & SOAR solutions. He has been actively involved in deploying, upgrading, and managing SIEM & SOAR solutions for AVP customers. He is a tech blogger and author to many RedBooks on technology integration with other IBM Solutions.
<b>Boudhayan Chakrabarty</b> Technical Specialist, IBM	Boudhayan Chakrabarty (Bob) is a certified Thought Leader and is a Distinguished Technical Specialist in IBM India Software Labs, specializing in Security Intelligence and Compliance. With more than 14 years of practical experience with different SOC and SIEM solutions, he is presently working as a Product Lead in ISL and has been the author of different white papers, research papers, and IBM Redbooks® publications. He has also been conducting training and webcasts in this field. He has contributed to many international deployments, from the RFP phase to the Proof of Concept phase, to the ultimate deployment for and training of the customer. He has designed architecture for different customer SOC centers using IBM solutions and is an SME for Security Intelligence and Compliance.
<b>Bubai Maity</b> Cyber Security Consultant in IBM	Bubai Maity has been working as a CyberSecurity Consultant in IBM for the last 3 years. He has overall 7 years of experience in various technologies in Cloud and DevOps environments and currently working on SIEM solutions. He has been actively involved in deploying, upgrading, and troubleshooting issues of IBM QRadar Solutions. As a speaker, he has presented technical talks in the university relationship program.
<b>Praphullachandra Sharad Mujumdar</b> Security Consultant in IBM India Software	Praphullachandra Sharad Mujumdar is a Security Consultant in IBM India Software Labs. With 17 years of experience in the IBM Security Domain, he has worked across different solutions, including IBM Security Directory Server, Federated Identity Manager, and Access Manager solutions for e-business. His knowledge extends from Identity and Access Management Solutions to SIEM solutions. He provides technical assistance to customers worldwide and has delivered multiple webcasts in the SIEM domain.
<b>Prateek Jain</b> Security Specialist, IBM	Prateek Jain is working as a Security Specialist in IBM India Software Labs. He comes with 16 years of rich experience in Networks and Security. He has worked extensively as an SME on Network Security products like NIPS, Vulnerability Scanners, UTMs, etc., and is currently working on IBM QRadar suites of Products. He has played key roles in product deployments, administration, and troubleshooting of IBM QRadar solutions. As a speaker, Prateek has presented technical talks at various levels including Customer Education Programs, Technical conferences.
<b>Shreya Mishra</b>	Shreya Mishra is an IBM Advanced Threat Support Engineer and has collaborated to publish a paper on QRadar Spectrum Scale. She has experience in handling impediments in dynamic customer environments, escalation management experience with multiple



<b>IBM Advanced Threat Support Engineer</b>	stakeholders including customers and product teams. She has also provided implementation support for project lifecycle processes. She has worked in close collaboration with DevOps, L3 support, and other internal teams. She is a techno enthusiast, with a knack for resolving technical problems
<b>Vikram Khopade</b> IBM Software Engineer	Vikram Khopade is an IBM Software Engineer and EC Council Certified Ethical Hacker, RHCSA certified engineer, and Certified Scrum Master. He has 5+ years of experience in the IT Industry. Vikram comes with diverse experience by supporting various IAM products, Test engineer with Security Key Lifecycle Manager in Data Security, and currently working with supporting SIEM Qradar. Vikram is active among multiple IBM technical communities having three Intellectual property publications and one patent decided to be filed.
<b>Jenson John</b> Security Consultant	Jenson John has been working as a Security Consultant in IBM India Software Labs for last 9+ years working across multiple IBM security products, such as IBM Qradar SIEM, IPD/IDS. Previous to SIEM solutions, he has also worked for 4+ years with various Tivoli suite of products which now forms part of IBM Security product. Jenson has conducted many OpenMic sessions, and also have provided training on these products. He also has many technical article published on resolving issues found on these products.
<b>Savani Shetye,</b> Advanced Threat Support Engineer	Savani Shetye is IBM Advanced Threat Support Engineer since last 1 years. She has overall 3+ years of experience in various technologies in Cloud and Linux environment and currently working on SIEM solutions. She is RHCSA certified. She has been actively involved in deploying, upgrading and troubleshooting issues of IBM QRadar Solutions. She has worked in close collaboration with DevOps, L3 support, and other internal teams. Her responsibilities include providing the best solutions and future directions in the SIEM domain.
<b>Sheona Sinha,</b> Advanced Threat Consultant	Sheona Sinha is working as an Advanced Threat Consultant in IBM India Software Labs. She has been working with SIEM solutions for premium support customers for more than two years. She has been working in close collaboration with Engineering Team, DevOps, Sales Team, and other internal teams for providing the best SIEM solutions and enhancements for support customers. Her responsibilities include providing the best solutions and future directions in the SIEM domain for Accelerated Value Program Customers. Along with this, customising Threat Management solutions for different customer needs is her forte.
<b>Stuti Gupta,</b> Advanced Threat Squad Lead	Stuti Gupta is working as an Advanced Threat Squad Lead in IBM India Software Labs. She has more than 6 years of experience in Security Domain leading the team. Her team looks after the critical deployment issues. Her responsibilities include providing best solutions for the issues in SIEM domain along with planning and deployments for different customers. Along with handling customer escalations for the team and providing resolutions for security related issues, she also has been working on fixing defects in the SIEM solutions.
<b>Jashin Kumar,</b> Advanced Threat Support Engineer	Jashin Kumar is an IBM Advanced Threat Support Engineer with 4+ years of experience in handling impediments in dynamic customer environments, escalation management experience with multiple stakeholders including customers and product teams. He has also provided implementation support for project lifecycle processes. He has worked in close collaboration with DevOps, L3 support, and other internal teams. He is a techno enthusiast, with a knack for resolving technical problems



## About Organizers-

	<p><b>The Pune Knowledge Cluster (PKC)</b> has been established by the Office of the Principal Scientific Adviser to the Government of India. The aim is to bring together academia, R&amp;D institutions, and the industry of Pune and its surrounding areas, to address the challenging problems of the region through innovative means, using scientific knowledge and engaging highly skilled human resources. Furthermore, PKC aims to foster capacity building and promote skills development and entrepreneurship among the students and professionals of the city. All relevant organizations and experts will be partners and consulted to identify sustainable solutions to the problems of the city and improve its liveability and prosperity.</p> <p>While the PKC is administered by the Inter-University Centre for Astronomy and Astrophysics (IUCAA), it is a project of and for the whole city. In the initial phase, PKC would focus on air, water, health, and sustainable mobility.</p> <p>For more information, visit: <a href="https://www.pkc.org.in/">https://www.pkc.org.in/</a></p>
	<p>International Business Machines Corporation (IBM) is an American multinational technology corporation headquartered in Armonk, New York, with operations in over 171 countries. The company began in 1911, founded in Endicott, New York by trust businessman Charles Ranlett Flint, as the Computing-Tabulating-Recording Company (CTR) and was renamed "International Business Machines" in 1924. IBM is incorporated in New York.</p> <p>IBM produces and sells computer hardware, middleware, and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. IBM is also a major research organization, holding the record for most annual U.S. patents generated by a business (as of 2020) for 28 consecutive years. IBM is one of 30 companies included in the Dow Jones Industrial Average and one of the world's largest employers, with over 345,000 employees as of 2020. At least 70% of IBM employees are based outside the United States and the country with the largest number of IBM employees in India.</p> <p>For more information, visit: <a href="https://www.ibm.com/">https://www.ibm.com/</a></p>