

Fundamentals of Data-manipulating Privacy Enhancing Technologies (PETs)

Course Objectives

Privacy Enhancing Technologies (PETs) comprise a long-standing and wide-ranging field of research, technologies, and solutions, which seek to address core data protection concepts such as online privacy, data protection by design, data minimisation and data security. In parallel, they aim to realise and unlock the value of data within the limits of applicable laws and regulations.

This course provides a comprehensive overview of commonly discussed modern PETs which operate on data directly, in the context of organisations applying such technologies to process personal data (a companion course addresses PETs which use cryptographic principles to protect data). It introduces the concepts at an easily understandable level, compares their pros and cons against other PETs, and raises known issues and limitations. The course includes several exercises and demonstrations aimed at strengthening participants' understanding. As it is targeted at decision makers, managers, and system designers, it does not require advanced knowledge of mathematics nor programming skills.

Who should attend?

- Privacy Engineers / Technical staff / Developers / Data Analysts / Project Managers / Data Architects
- Data Protection Officers (DPOs) / Compliance Professionals / In-house counsels
- Executives and staff involved in the use, management and / or protection of an organisation's information and data

Course Details

Course Code: CS404

Course Title: Fundamentals of Data-manipulating Privacy Enhancing Technologies (PETs)

Course Duration: ½ day (approximately 3.5 contact hours)

Mode of Training: In-person / Online options available (please refer to our online course schedule)

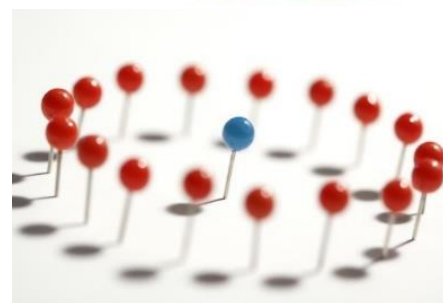
Venue: Drew & Napier LLC

10 Collyer Quay, 10th Floor Ocean Financial Centre

Singapore 049315

Course Fee: S\$300.00 (excluding GST)

To view available dates and register for this course, please click [here](#). You may also register for this course and view all available courses on our course schedule page (www.drewnapier.com/Academy/Course-Schedule)



Course Outline

- **Context for Data-oriented PETs**
 - Purpose and scope of PETs
 - Regulatory requirements and general guidance on PETs
 - PETs versus related data protection technologies (like anonymisation)
- **Modern PETs for data protection**
 - Private set intersection
 - Differential privacy
 - Fake/Mock/Fictitious data versus AI based synthetic data

Course Facilitator



Albert Johann Pichlmaier is Senior Learning Technology Designer with Drew Academy and concurrently Senior Cybersecurity & Privacy Engineer with Drew & Napier's Data Protection, Privacy & Cybersecurity practice. He holds a degree in Computer Science from a German tertiary institution. He is a Certified Information Systems Security Professional (CISSP), a Certified Data Privacy Solutions Engineer (CDPSE), a holder of the Singapore WSQ Advanced Certificate in Learning and Performance (ACLP), and a certified Blockchain Developer. Albert is credited as an inventor of two patents granted in Germany and other countries. His technical expertise provides Drew & Napier and our clients with a wide-ranging perspective on matters involving Cybersecurity, Cryptography, Quantum Computing, Artificial Intelligence / Machine Learning, Blockchain Development, Data Analytics, Big Data, and Data Visualisation, amongst others. For the courses and webinars under the Drew Academy, he draws from this pool of knowledge and experience to explain technical content to non-technical audiences, develop proof-of-concept and learning tools, and engage with experts on finer details.

Albert was formerly an Executive Manager with the Personal Data Protection Commission (PDPC), where he was involved in technology assessments for data breach investigations, research into trending / disruptive technologies and advising on technical aspects of various PDPC guidelines and publications (amongst other matters). Prior to his role with the PDPC, Albert worked in several technology-related roles, in particular as Technical Manager for the Common Criteria Certification Body within Infocomm Development Authority of Singapore (IDA), and various companies in Germany, Spain and Singapore including as Vice President of research and development, lead testware engineer and software engineer. He was also a technopreneur, having set up a company to provide testing tools for embedded systems and smartcard applications.