



Professeur (Full) Chaaben KOUKI

Département de rattachement: Operations
Management and Decision Science

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INTÉRÊTS DE RECHERCHE

- Système de production et Supply Chain durables
- Management de la production
- Théorie des files d'attente

DOMAINE D'ENSEIGNEMENT

- Achats et contrôle de gestion dans la Supply Chain
- Performance de la chaîne d'approvisionnement
- Management des flux logistiques
- Gestion des opérations et des services

FORMATION

Diplôme le plus élevé :

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| 2010 | Doctorat, Génie industriel, Ecole Centrale Paris, France
<i>La gestion des stocks de produits périssables et l'utilisation des intégrateurs temps - température</i> |
| 2007 | MSc en Génie industriel, Ecole Centrale Paris, France |
| 2006 | Licence en Génie industriel, Ecole Nationale d'Ingénieur de Tunis, Tunisie |

EXPÉRIENCE ACADÉMIQUE ET PROFESSIONNELLE

Expériences académiques

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| Depuis 2022 | Professeur, ESSCA School of Management, France |
| 2015 - 2022 | Professeur associé, ESSCA School of Management, France |
| 2012 - 2015 | Professeur associé, ESC Rennes School of business, France |

Expériences en entreprise

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| 2010 - 2012 | Responsable d'inventaire, Michelin Group, France |
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Recherche

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| 2025 - 2025 | Chercheur invité, Ecole Nationale d'Ingénieurs de Tunis (ENIT), Tunisie |
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Articles évalués par les pairs

- KOUKI, C., DRENT, M., BABAI, M.Z. et DRENT, C. (2026). Dedicated maintenance and repair shop control for spare parts networks. *European Journal of Operational Research*, 331(1), pp. 809-822.
- KOUKI, C., MOUSSAWI-HAIDAR, L. et JABER, M.Y. (2025). A divergent two-echelon spare part inventory system with lost sales and compound Poisson demand. *International Journal of Production Economics*, 285, pp. 109625.
- STRANIERI, F., STELLA, F. et KOUKI, C. (2024). Performance of Deep Reinforcement Learning Algorithms in Two-Echelon Inventory Control Systems. *International Journal of Production Research*, 62(17), pp. 6211-6226.
- KOUKI, C., ARTS, J. et BABAI, M.Z. (2024). Performance evaluation of a two-echelon inventory system with network lost sales. *European Journal of Operational Research*, 314(2), pp. 647-664.
- KHALIFA, F.B., KOUKI, C., SAFRA, I. et JEMAI, Z. (2023). Analysis and optimisation of periodic inventory models for perishable items with a general lifetime. *International Journal of Production Research*, 61(21), pp. 7483-7501.
- KOUKI, C. et LARSEN, C. (2021). Rationing policies in a spare parts inventory system with customers differentiation. *International Journal of Production Research*, 51(20), pp. 6270-6290.
- KOUKI, C., LEGROS, B., BABAI, M.Z. et JOUINI, O. (2020). Analysis of base-stock perishable inventory systems with general lifetime and lead-time. *European Journal of Operational Research*, 287(3), pp. 901-915.
- KOUKI, C., BABAI, Z., JEMAI, Z. et MINNER, S. (2019). Solutions procedures for Lost Sales Base-Stock Inventory Systems with Compound Poisson Demand. *International Journal of Production Economics*, 209, pp. 172-182.
- KOUKI, C., BABAI, M.Z. et MINNER, S. (2018). On the benefit of dual-sourcing in managing perishable inventory. *International Journal of Production Economics*, 204, pp. 1-17.
- KOUKI, C., BABAI, M.Z., JEMAI, Z. et MINNER, S. (2016). A coordinated multi-item inventory system for perishables with random lifetime. *International Journal of Production Economics*, 181(A), pp. 226-237.
- KOUKI, C., JEMAI, Z. et MINNER, S. (2015). A Lost Sales (r,Q) Inventory Control Model for Perishables with Fixed Lifetime and Lead Time. *International Journal of Production Economics*, 168, pp. 143-157.
- KOUKI, C. et JOUINI, O. (2015). On the Effect of Lifetime Variability on the Performance of Inventory Systems. *International Journal of Production Economics*, 167, pp. 23-24.
- KOUKI, C. et JOUINI, O. (2015). On the effect of lifetime variability on the performance of inventory systems. *International Journal of Production Economics*, 167, pp. 23-34.
- KOUKI, C., JEMAI, Z., SAHIN, E. et DALLERY, Y. (2014). Analysis of a Periodic Review Inventory Control System with Perishables having Random Lifetime. *International Journal of Production Research*, 52(1), pp. 283-298.
- KOUKI, C., JEMAI, Z., SAHIN, E. et DALLERY, Y. (2013). Assessing the Impact of Perishability and the Use of Time Temperature Technologies on Inventory Management. *International Journal of Production Economics*, 143(1), pp. 72-85.

Communications (conférences avec comité de sélection)

- KOUKI, C. (2025). Le transport et la supply chain à l'ère du digital. Dans: Tunisia Digital Summit. Tunis.
- KOUKI, C. (2024). Drugs Inventory: Human Decision Making Versus Deep Reinforcement Learning. Dans: 22nd International Symposium on Inventories: ISIR 2024. Budapest.
- STRANIER, F., STELLA, F. et KOUKI, C. (2023). Performance of Deep Reinforcement Learning Algorithms in Two-Echelon Inventory Control Systems. Dans: ISIR 2023 Summer School: Mitigating inventory uncertainty through whole systems thinking. Cardiff University.
- KOUKI, C., DRENT, M., DRENT, C. et BABAI, M.Z. (2022). Dedicated maintenance and repair shop control. Dans: 21st International Symposium on Inventories (ISIR2022). Budapest.
- KOUKI, C. (2018). Base-stock Inventory Systems for Service Parts with Service Differentiation and Multiple Batch Demand Classes. Dans: 20th International Symposium on Inventories. Budapest.
- KOUKI, C. (2016). Exact analysis of lost sales base stock inventory systems with compound Poisson demand. Dans: 19th international symposium on inventories. Budapest.
- KOUKI, C. (2010). A lost sales periodic review perishable inventory with random lifetime. Dans: Production and Operations Management Society 21st annual conference. Vancouver.
- KOUKI, C. (2009). Discrete Time inventory policy for perishable items with fixed lifetime. Dans: 13th International Federation of automatic control: Symposium on Information Control Problems in Manufacturing. Moscow.
- KOUKI, C. (2009). Inventory Control for Perishable Products and the Use of a New Technology: Time Temperature Integrator technology. Dans: International Conference on Industrial Engineering and Systems Management. Montreal.
- KOUKI, C. (2008). A continuous review inventory control for perishable products having a deterministic lifetime and lead time. Dans: The International Society for Inventory Research. Budapest.
- KOUKI, C. (2008). An (r,Q) inventory policy for perishable products having a fixed lifetime. Dans: 7e conference de Modlisation et Simulation. Paris.

Contributions intellectuelles orientées vers la pratique, diffusion des savoirs

- KOUKI, C. (2025). Inteligencia Artificial y Cadena de Suministro, una alianza estratégica para un futuro más ágil. Interempresas - Manutención e almacenaje, Espagne.
- KOUKI, C. (2025). Inteligencia Artificial y Cadena de Suministro, una alianza estratégica para un futuro más ágil. Interempresas - Almacenaje y logística, Espagne.
- KOUKI, C. (2025). Inteligencia Artificial y Cadena de Suministro, una alianza estratégica para un futuro más ágil. Novologista.com, Espagne.

ACTIVITÉS DE RECHERCHE

Activités éditoriales

Travaux d'évaluation pour des revues scientifiques

- Depuis 2008 Évaluateur ad-hoc, International Journal of Production Economics
- Depuis 2008 Évaluateur ad-hoc, International Journal of Production Research
- Depuis 2008 Évaluateur ad-hoc, European Journal of Operational Research

Service à la discipline

Comité scientifique d'une conférence académique

- 2024 - 2026 Membre du comité scientifique, International Society for Inventory Research (ISIR)
- 2024 - 2024 Special session chair on "Artificial Intelligence in Inventory Research", International Society for Inventory Research (ISIR)

Participation à des comités d'évaluation

- Depuis 2024 Audit member of the Supply chain program with MIT partner, Luxembourg University, Luxembourg

Service à la communauté professionnelle

Participation à des événements professionnels, tables rondes

- 2024 - 2024 Experiences and approaches to developing innovative AI algorithms, products and services in higher education, International Purchasing and Supply Education and Research Association (IPSERA)
- 2023 - 2023 Séminaire Lokad TV : solutions offertes par l'IA pour les chaînes d'approvisionnement. Avec avec Joannès Vermorel, CEO de Lokad, et Li Ling, Eindhoven University of Technology

Service à l'institution

Participation active à un événement de l'institution

- 2024 - 2024 Intelligence Artificielle appliquée au domaine des ressources humaines, ESSCA School of Management, France
- 2024 - 2024 Data Lab meeting on AI and education, ESSCA School of Management, France
- 2024 - 2024 IPSERA Education SIG workshop 'Artificial Intelligence Opportunities in PSM Education Initiative' was held on the role of AI in Purchasing and Supply Management (PSM) education, ESSCA School of Management, France
- 2023 - 2023 Intelligence artificielle générative modèles et applications, ESSCA School of Management, France
- 2023 - 2023 Large Language Models in marketing, ESSCA School of Management, France

Supervision de thèse de doctorat

Depuis 2021, Comité de suivi de thèse

B. BACHA, En cours, Impact des décisions d'inventaire des magasins et des clients sur le gaspillage alimentaire, Université Paris-Saclay - Paris 11 - Paris

2025, Co-directeur de thèse

F. STRANIERI, Soutenue, Advancing Supply Chain Inventory Management through Mathematical and Deep Reinforcement Learning Approaches, Politecnico di Torino - Torino

2026, Co-directeur de thèse

F. BEN KHALIFA, Soutenue, Multi-Echelon Inventory Management for Perishable Products", explored complex decision-making in supply chains under uncertainty and perishability, Ecole Nationale d'Ingénieurs de Tunis (ENIT) - Tunis