



**STEFANO A.E. COPELLO**  
*Curriculum Vitae*

## SECTION 1

| <b>Personal Data</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| Surname: Copello      | Name: Stefano Alessandro Enrico                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| e-mail:               | Tel.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Education</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Degree:               | Civil Engineer (Università degli Studi di Genova, 1990, Thesis "Metodi per il controllo dinamico delle vibrazioni" Rel. Prof. D. Stura, Prof. G. Solari)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Languages:            | English CEF Level C1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Computer skills:      | MS Office Package, Fortran, FEM programs (Ansys, Marc) New Strudl Offshore NSO (Suite of programs for analysis and design of offshore structures)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Training and Courses: | <ul style="list-style-type: none"> <li>• RINA multidisciplinary internal course for new workers, February-April 1992</li> <li>• CISM Centre Internationale de Sciences Mechanique, Course on EUROCODES FOR THE STRUCTURAL DESIGN, May 1992, Udine</li> <li>• LONDON - SUT, 24-25/11/1993 Seminar on API RPZA-LRFD: ITS PRESENT AND FUTURE ROLE IN OFFSHORE SAFETY concerning new semiprobabilistic codes for the design of steel fixed offshore platforms</li> <li>• MILANO - FAST, 30/05/94, Seminar on Risk Analysis for offshore structures</li> <li>• ASSISI - IFIP, 4/9/94 - 7/9/94, Working Group Symposium on Structural Reliability</li> <li>• Istituto Italiano di Saldatura - Course for Specialization in Welding, GENOVA - IIS, from 1/3/95 to 31/5/95</li> <li>• CROYDON - U.K., 1/11/95 - 3/11/95, UNCERTAINTIES IN THE DESIGN PROCESS</li> <li>• IBM course on UNIX system, Genova, 11/12/95-13/12/95</li> <li>• LONDON - 30/9/96 - 1/10/96, IBC Course on ADVANCES IN RISER TECHNOLOGIES</li> <li>• ABERDEEN - IBC Workshop, 2/6/98 - 4/6/98, WORLDWIDE DEEPWATER TECHNOLOGIES</li> <li>• RAVENNA - Chambre of Commerce, 26/3/98 - 27/3/98, Decommissioning of Offshore Structures</li> <li>• GENOVA - Course on NSO/ISYMOST tools of the OCEANOS software system for the analysis of offshore structures, November 1998</li> <li>• GENOVA - METIS Course on Economics &amp; Project Management, March - May 2001</li> <li>• GENOVA - Course on NSO/HYDROSTAR modules of the OCEANOS system, May 2001</li> <li>• GENOVA - RINA Industry Course on 'Attività di Controllo Tecnico nel Quadro Normativo dei LL.PP, Novembre 2001</li> <li>• RECCO - BSI Course on ISO 9001:2000 ("Management Briefing"), 25-26 March 2002</li> <li>• RECCO - BSI Course on ISO 9001:2000</li> </ul> |

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|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                        | <p>("Quality System Documentation Course"), 27-28 Marzo 2002</p> <ul style="list-style-type: none"> <li>• MILANO – Course CEGOS on Team Management</li> <li>• PARIS – April 2008 – ASME Course – How to choose floating production systems from a hydrodynamic point of view</li> <li>• GENOVA – 2011 – Course Gustav Kaiser on "Team management"</li> <li>• 2016 - Confindustria Genova – Corso di formazione in materia di sicurezza sul lavoro per Dirigenti Lgs. 81/08</li> <li>• DITEN – Istituto Italiano della Saldatura Genova – 15 marzo 2017 – Frattura e fatica: metodi sperimentali e di analisi delle strutture saldate</li> <li>• Leadership Hub, Management Education by SDA Bocconi School of management, edition 2023, 21-22 June 2023</li> </ul> |
| Further information:                                                                   | <ul style="list-style-type: none"> <li>• Member of ISO TC67/SC7 Natural Gas &amp; Petroleum Industrial Processes - Offshore Structures from 1995 to 1999</li> <li>• Member of Board of Directors of AIOM (Associazione Italiana di Ingegneria Offshore e Marina) since 1997</li> <li>• Member of SSC - Ship Structures Committee iv.1 (Design Principles and Criteria) of International Ship and Offshore Structures Congress from 1994 to 1998</li> <li>• Member of OT UNI/CT 113 Sistema Trasporto Gas Naturale – GL 01 "Infrastrutture" – Liaison with CEN/TC 234/WG3 Gas Transportation 2022</li> </ul>                                                                                                                                                        |
| <b>Other work experiences</b>                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Professional experiences: (only those not cited in the section 2 of the present Annex) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1991                                                                                   | Structural Engineer at FIAT R&D (Centro Ricerche Fiat, Orbassano (TO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>University enrolment</b>                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2005-2014                                                                              | Teacher at Politecnico of Torino on yearly basis for a Master on Reliability, Availability and Maintenance of Structural Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2016-2018                                                                              | Contracted Professor of Probabilistic Methods for Marine Structures for Naval Architects at DITEN - Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni, University of Genoa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Current position</b>                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Place of work:                                                                         | RINA Services                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Date of employment:                                                                    | 2.5.1991                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Role:                                                                                  | Head of Energy Certification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

### **Further information**

#### **Personal skills**

- Design and assessment of marine structures and fixed/floating offshore installations and transportation systems
- Structural reliability and probabilistic methods
- Fatigue, fracture mechanics and life extension assessment
- Structural dynamics, seismic and wind engineering application

#### **Papers presented at National and International Conferences**

- Copello S/Dogliani M "Verifica Strutturale di Piattaforme Fisse Offshore: Metodo alle Tensioni Ammissibili e Metodo Semiprobabilistico" (XXI Convegno Nazionale AIAS - Associazione Italiana per l'Analisi delle Sollecitazioni, Settembre 1992, Rapallo)
- Cazzulo R/Copello S/Ziliotto F "LRFD Design for Jacket Platforms in the Mediterranean Sea" (Offshore Mediterranean Conference, Marzo 1993, Ravenna)
- Cazzulo R/Copello S/Dogliani M "Non-dimensional Reference Parameters for LRFD Design" (Integrity of Offshore Structures, Giugno 1993, Glasgow)
- Copello S/Pittaluga A/Ziliotto F "Extension of API RP2A LRFD to Mediterranean Sea Design" Internationally Reliability Based Standards OMAE 1994 Workshop, Houston, TX
- Copello S/Faccioli R/Ferretti R/Piva R "System Fatigue Reliability Updating for Offshore Structures" (Offshore Mechanics and Arctic Engineering, OMAE 1995, Glasgow)
- Di Cocco N/Copello S/Piva R "Improved Processes for Strength Assessment in the Requalification of Offshore Structures" (Advances in Safety and Reliability, ESREL 1997, Lisboa)
- Buongiorno P/Copello S "The realization of a RLC Support Structure for Offshore Facilities in Shallow Waters" (Offshore Mediterranean Conference, Marzo 2001, Ravenna)
- Copello S/Castelli P "Life Extension of a Fixed Offshore Platform Based on Monitoring Results" (Offshore Mediterranean Conference, Marzo 2013, Ravenna)
- Copello S/Gaugenrieder S/Petrillo F "A System Approach for Evaluating Residual Life of Fixed Offshore Platform" (Offshore Mediterranean Conference, Marzo 2015, Ravenna)
- Copello S "RINA approach to the offshore: enhancing both safety and profitability", 11<sup>th</sup> China Offshore Convention, June 11-12, 2015, Shenzhen, China
- Copello S "Vita di servizio di piattaforme offshore", Studi di aggiornamento AIOM sull'Ingegneria Offshore e Marina. Università degli Studi di Genova, 16-17 October 2015
- Copello S "Systematic evaluation of platform life", Offshore Engineer Vol. 40 No. 9, September 2009
- Nicolosi R/ Copello S/Bombardi A "Effect of Modelling Assumptions on Deepwater Pipeline Installation from a Certification Authority's Perspective" (Mediterranean Offshore Conference, MOC, April 2016, Alexandria, Egypt)
- Gaugenrieder S/Pellegrino C/Copello S/ "Condition assessment for offshore platforms reuse" (Offshore Mediterranean Conference, 29-31 March 2017, Ravenna)
- Copello S/Magliano M/Manera A "Minimum requirements for decision making and maintenance of existing fixed offshore structures" (Offshore Mediterranean Conference, 29-31 March 2017, Ravenna)
- Copello S/Rizzo C M "Assessment of residual life of existing fixed offshore structures" (MARSTRUCT, Analysis and Design of marine structures, 6<sup>th</sup> International Conference on marine structures, Lisboa, 8-10 May 2017)
- Copello S, "Ensuring continuing safety and asset integrity of ageing assets. The industry approach to life extension" JRC Workshop for Offshore Competent Authorities, JRC Ispra, 26<sup>th</sup>-28<sup>th</sup> November 2018
- Basso A/Copello S "Machine Learning application in Jacket Life Extension" (Offshore Mediterranean Conference, 27-29 March 2019, Ravenna)
- Basso A/Copello S "Monitoring & Machine Learning Application for Offshore Platforms Life Extension" (Studi di aggiornamento AION, 15-16 Novembre 2019, Università degli Studi di Firenze)

#### **Further speeches and experience as Teacher or other Academic role**

- Criteri di Verifica di Strutture Offshore – Seminario tenuto con Prof. Boote presso Università di Genova Dipartimento di Ingegneria Navale e Meccanica – Marzo 2003
- Criteri di Verifica di Strutture Offshore - Seminario tenuto con Prof. Boote presso IX Sez. Consiglio Superiore dei Lavori Pubblici Roma – Maggio 2003

- Università degli Studi di Genova, Anno Accademico 2012/13 Correlatore Tesi di Laurea Specialistica in Ingegneria Navale di A.Rossi (Rel. Prof. E. Rizzuto) “Estensione della vita operativa della piattaforma Vega A e programmazione del piano ispettivo”
- Corso AIOM, Associazione di Ingegneria Offshore e Marina, Genova, 20.12.2014, Estensione della vita di servizio di strutture offshore
- Università degli Studi di Genova, MIPET, Master in Industrial Plant Engineering and Technologies, 5<sup>th</sup> Ed. 2014 Advisor on Thesis “Seismic Design Procedures for the assessment of New and Existing Fixed Offshore Platforms” by Dr Eng. A. Tarantini
- Università degli Studi di Genova, MIPET, Master in Industrial Plant Engineering and Technologies, 6<sup>th</sup> Ed. 2015 Advisor on Thesis “Offshore Wind Farms Certification” by Dr J. Girello
- Università degli Studi di Genova, DINAV, Relatore Tesi di Laurea in Ingegneria Navale, A.A: 2015/2016 A. Manera “Minimum requirements and methodology for system assessment of existing fixed offshore structures”
- Università degli Studi di Genova, DINAV ,Relatore Tesi di Laurea in Ingegneria Navale, A.A: 2015/2016 S.Bregante “System approach for fatigue reliability of a jacket structure”
- Università degli Studi di Genova, DINAV, Relatore Tesi di Laurea in Ingegneria Navale, A.A: 2016/2017 M. Bigi “Concept selection of floating structures for offshore energy production”
- Università degli Studi di Genova, DINAV, Relatore Tesi di Laurea in Ingegneria Navale, A.A: 2016/2017 R. Sercia “Operazioni marine per la realizzazione di un parco eolico offshore – Studio del varo di un cavo elettrico sottomarino”
- Università degli Studi di Firenze, Scuola di Ingegneria, Seminario su Monitoraggio Ambientale e Strutturale, 30 anni di attività della piattaforma Vega, Firenze, 18 Marzo 2018
- Università degli Studi di Genova, DICCA, Seminario su Ingegneria Offshore per il Corso di Laurea Triennale ‘Introduzione all’ingegneria delle costruzioni e del territorio’, a.a. 2018/19, Genova, 2 Maggio 2019
- Università degli Studi di Genova, Lettura ‘Introduzione all’Ingegneria Offshore – Strutture tipiche per la produzione di idrocarburi ed energia eolica’ per IANUA – ISSUGE LIVELLO MAGISTRALE Indirizzo in Scienze e Tecnologia per la Sostenibilità – STS Triennale ‘Introduzione all’ingegneria delle costruzioni e del territorio’, Genova, Edizioni 2020, 2021, 2022
- University of Genoa, PhD Course teacher ‘Reliability methods for structural assessment – Applications for offshore structures’ offered for the PhD program in Civil, Chemical and Environmental Engineering - Curriculum in Wind Science and Engineering, A.Y. 2019/2020 (XXXV cycle), July 2020
- University of Rome – Roma Tre – Ingegneria delle Tecnologie per il Mare – Seminario “Tipologie e criteri di progetto di installazioni offshore per la produzione di ingegneria eolica”, Sito di Ostia, ) Dicembre 2021
- Università di Genova, Lezione ‘Offshore structural solutions’ all’interno della II Edizione del Master ‘Energia & Sostenibilità’, 19 Aprile 2022
- Università degli Studi di Genova, DICCA, Seminario su Ingegneria Offshore per il Corso di Laurea Triennale ‘Introduzione all’ingegneria delle costruzioni e del territorio’, a.a. 2019/20, 2020/21, 2021/22, 2022/23 e 2023/24



17/7/2024



**SECTION 2**  
*Professional experience*

| Project title                                                                                  | Period (from - to) | Description                                                                                                                                                                | Role played in the project  | Effort (in days) |
|------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------|
| Reliability assessment and requalification of Amelia A jacket                                  | 1991               | Development of LRFD tools and structural verification of 8-legs jacket                                                                                                     | R&D and Structural Engineer | 120              |
| LRFD design in the Offshore Mediterranean                                                      | 1991-1992          | Development of methods and programs for LRFD design of offshore platforms in the Mediterranean Sea                                                                         | R&D and Structural Engineer | 150              |
| AMELIA B Offshore Platform                                                                     | 1992               | Comparison assessment between API WSD and API LRFD                                                                                                                         | Offshore Engineer           | 20               |
| API LRFD calibration in the Mediterranean Sea                                                  | 1992-1993          | Reliability Based Calibration of partial safety factors for LRFD design of offshore jackets according to API standard                                                      | R&D and Structural Engineer | 45               |
| ASHRAFI Field                                                                                  | 1992               | Design appraisal and certification of 5 ( WHP2, WHP 1, MPA, MWP4, MWP3) platforms Red Sea                                                                                  | Offshore Engineer           | 10               |
| BARBARA H Offshore Platform                                                                    | 1992               | Design appraisal and certification of jacket and deck                                                                                                                      | Offshore Engineer           | 15               |
| Derivation of safety factors relevant to the strength of tubular joints of offshore structures | 1993               | Joint Industry Projects (supported by ENI) with AME – Advanced Mechanics Engineers –UK                                                                                     | R&D and Structural Engineer | 15               |
| Design Guidelines for Submerged Floating Tunnels                                               | 1993-1994          | Development of guidelines and reliability targets for the feasibility design of Submerged floating tunnels for the Messina Strait Crossing carried out by Consorzio EniSud | R&D and Structural Engineer | 120              |
| RISC - "Reliability Inspection Scheduling for Fixed Offshore Platforms"                        | 1993-1995          | CEC-THERMIE research EC Program with TNO Den Haag, University College of London & others EC partners                                                                       | R&D and Structural Engineer | 75               |
| AIDA T Offshore Platform                                                                       | 1994               | Design appraisal and certification of jacket and deck                                                                                                                      | Offshore Engineer           | 15               |
| RASOS - "Reliability Analysis System for Offshore Structures                                   | 1995               | BRITE P1270 research program in partnership with WS Atkins (UK) for reliability analysis of offshore platf.                                                                | R&D and Structural Engineer | 15               |
| EVOIO (Estensione vita operativa installazioni offshore)                                       | 1995-1998          | Jointly industry project ENI (Div. Agip)–Tecnomare-RINA for the development of engineering tools for the reassessment of fixed offshore platform                           | R&D and Structural Engineer | 100              |

| Project title                  | Period (from - to) | Description                                                                                                                                                                                                                       | Role played in the project                                          | Effort (in days) |
|--------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------|
| WAKAR Offshore Platform        | 1996               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 15               |
| BONACCIA Offshore Platform     | 1996               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 20               |
| SUPER DRYDOCK Port of Genoa    | 1996               | Longitudinal strength reassessment of the 100,000 DWT prestressed concrete and steel structures of the RC drydock 350m long for sea transportation from Genoa to Tuzla (Turkey).                                                  | Structural and Marine Engineer                                      | 30               |
| BONACCIA Offshore Platform     | 1997               | Marine warranty surveyor for the load out, seafastening (in Rosetti yard) and marine installation of jacket (offshore site)                                                                                                       | Marine Warranty Surveyor                                            | 20               |
| NEW SEMMAN 1 Offshore Platform | 1998               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 10               |
| POOL V Offshore Platform       | 1998               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 10               |
| SEMMAN 1 Offshore Platform     | 1998               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 10               |
| SEGAN 1 Offshore Platform      | 1998               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 10               |
| PFSE 1 Offshore Platform       | 1998               | Design appraisal and certification of jacket and deck                                                                                                                                                                             | Offshore Engineer                                                   | 10               |
| ABB SOIMI MPF SANTA BARBARA    | 1998               | Certification of the design and fabrication survey of the RC caisson structure (266525x53,05x6m) for SHELL (Engineering contractor Grandi Lavori Fincosit) aimed to support production facilities in Santa Barbara Field, Nigeria | Structural Engineer<br>Fabrication Surveyor for concrete structures | 60               |
| DARFEEL Offshore Platform      | 1998               | Design appraisal of jacket and deck                                                                                                                                                                                               | Offshore Engineer                                                   | 15               |
| TLP Aquila                     | 1998               | Engineering Criticality Assessment for girth welds of TLP Aquila                                                                                                                                                                  | Structural and Welding Engineer                                     | 30               |
| Rosetta Project                | 1998               | Certification of the sealine                                                                                                                                                                                                      | Offshore Engineer                                                   | 20               |
| Edison LNG Terminal            | 1998               | Feasibility assessment<br>Mooring assessment<br>Study for removal                                                                                                                                                                 | Structural and offshore Engineer                                    | 45               |



| Project title                                          | Period (from - to) | Description                                                                                                                                                                              | Role played in the project                 | Effort (in days) |
|--------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------|
| BALTIM EAST Offshore Platform                          | 1999               | Design appraisal and certification of jacket and deck                                                                                                                                    | Offshore Engineer                          | 15               |
| Nembe Creek I, II, III, IV LIGHTWEIGHT CONCRETE BARGES | 1999               | Certification of the design of 4 (16 x 24 x 5m), lightweight RC structures for supporting production units in the Nembe Creek, Nigeria, for SHELL (Engineering contractor PGH Impregilo) | Structural Engineering and Project Manager | 40               |
| HA'PY Offshore Platform                                | 1999               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 25               |
| ITALCRANE steel frame                                  | 2000               | Design certification of steel structures according to CNR-UNI 10011 e 10030                                                                                                              | Structural Engineer                        | 5                |
| Floating bridges design                                | 2000               | Design certification of various modular structures according to BS for maritime structures                                                                                               | Marine Engineer                            | 20               |
| CERVIA K Offshore Platform                             | 2000               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 20               |
| TEMSAH Offshore Platform                               | 2000               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 25               |
| BARBARA T2 Offshore Platform                           | 2000               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 30               |
| Tecnopali Pile Tower                                   | 2000-2001          | Direct analysis through FEM model and verification of structural components of 2 pile towers made by TECNOPALI SPA Parma                                                                 | Structural Engineer                        | 20               |
| NAOMI PANDORA Offshore Platform                        | 2001               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 15               |
| PFSW2 Offshore Platform                                | 2001               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 10               |
| EMILIO Offshore Platform                               | 2001               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 20               |
| MWAFI Offshore Platform                                | 2001               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 25               |
| FOUKANDA Offshore Platform                             | 2001               | Design Certification of jacket and deck                                                                                                                                                  | Offshore Engineer                          | 30               |
| GREENSTREAM                                            | 2001-2002          | Certification of the LGTS pipeline                                                                                                                                                       | Offshore Engineer                          | 60               |
| UNI EN 45004 RINA INDUSTRY ACCREDITATION               | 2001-2002          | Accreditation with Sincert for Third Party Project Validation                                                                                                                            | PM and Technical Director                  | 45               |
| KASHAGAN FIELD EER Craft Study                         | 2002               | Risk analysis for the definition of the optimal Craft for the evacuation of the offshore installation in Kashagan East Field in the Caspian Sea                                          | Technical Coordinator                      | 90               |

| Project title                             | Period (from - to) | Description                                                                                                                                                                          | Role played in the project               | Effort (in days) |
|-------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------|
| CALM Buoy Offshore Porto                  | 2002-2004          | Technical consultancy for the International Arbitration ICC N 11516/KGA between SBM Monaco and Petrogal relevant to the fitness for purpose of the CALM Buoy Terminal offshore Porto | Marine engineer and Technical Consultant | 80               |
| FPSO KUITO                                | 2004               | Technical consultancy for ENI Div. E&P for Structural Integrity assessment and Fatigue Analysis of the FPSO installed in the Kuito field (Offshore Angola)                           | Marine engineer                          | 25               |
| FPSO FALCON                               | 2004               | Technical consultancy for ENI Div. E&P for Structural Integrity assessment and Fatigue Analysis of the FPSO Falcon (Offshore Angola)                                                 | Marine engineer                          | 15               |
| ADRIATIC LNG TERMINAL                     | 2004-2007          | Verification of the design of the RC and steel structures of the LNG Terminal (offshore Porto Viro, Rovigo), in compliance with the applicable Italian rules                         | Structural Engineer and Project Manager  | 600              |
| CALM Buoy Santa Panagia                   | 2007-2009          | Certification of the structural design of the CALM (engineering and construction by Fincantieri)                                                                                     | Marine Engineer and Project Manager      | 70               |
| DJENO PLANT Concrete Foundations          | 2008               | Technical consultancy, mix design review and yard survey for the design of the RC foundations of the new Djeno (Point-Noire) plant for ENI Congo                                     | Civil Engineer and Yard Survey           | 30               |
| Ombrina Mare 2                            | 2008               | Design assessment of the offshore platform for Medoilgas SpA                                                                                                                         | Project Manager and Engineer             | 15               |
| Agbara Drilling                           | 2008               | Design and fatigue reliability assessment for extension life                                                                                                                         | Project Manager and Engineer             | 30               |
| Aquila Project                            | 2008-2009          | Assessment of the existing mooring lines for reuse in the new FPSO for Aquila field (Offshore Brindisi)                                                                              | Offshore Engineer                        | 35               |
| AZALEA B Drilling and AZALEA B Production | 2009               | Design and fatigue reliability assessment for extension life of the platform's jacket                                                                                                | Offshore Engineer and Project Manager    | 20               |
| BALTIM EAST                               | 2009               | Design and fatigue reliability assessment for extension life of the jacket                                                                                                           | Offshore Engineer and PM                 | 15               |

| Project title                                | Period (from - to) | Description                                                                                                             | Role played in the project            | Effort (in days) |
|----------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------|
| GARIBALDI A, B and T                         | 2009-2010          | Design and fatigue reliability assessment for extension life of the jackets                                             | Offshore Engineer and PM              | 20               |
| PCC, PCW-C and PCW-T                         | 2009-2010          | Design and fatigue reliability assessment for extension life of the 3 platforms' jacket                                 | Offshore Engineer and Project Manager | 25               |
| PREZIOSO                                     | 2010               | Design and fatigue reliability assessment for extension life of the jacket                                              | Offshore Engineer and PMr             | 15               |
| ZATCHI FIELD                                 | 2010               | Design and fatigue reliability assessment for extension life of the jackets of ZAP, ZAF1, ZAF2, ZAF3 and ZAF4 platforms | Offshore Engineer and Project Manager | 35               |
| AGOSTINO A and B                             | 2010               | Design and fatigue reliability assessment for extension life of the jackets                                             | Offshore Engineer and PM              | 15               |
| CLARA W                                      | 2010               | Design and fatigue reliability assessment for extension life of the jacket                                              | Offshore Engineer and PM              | 15               |
| PIM – Pipeline Integrity Management Project  | 2008-2010          | Methodology assessment and following certification of various ENI sealines in the Italian waters                        | Offshore Engineer and Project Manager | 120              |
| FSO Vega                                     | 2009               | Certification of the design of the SPM of the FSO Vega for Edison                                                       | Offshore Engineer                     | 125              |
| Messina Strait Bridge                        | 2010-2011          | Validation of the design of the crossing bridge carried out by Eurolink for Stretto di Messina SpA                      | Technical Coordinator                 | 60               |
| Offshore Livorno Terminal FSRU               | 2006-12            | Design verification and owner engineering for the FSRU project for OLT                                                  | Marine engineer                       | 130              |
| LAM 13 & LAM 28 Platforms<br>LAM 22 Platform | 2011<br>2012       | Structural integrity assessment of existing offshore platforms in the Caspian Sea for DOTL                              | Offshore engineer                     | 80               |
| Vega A Field                                 | 2011-15            | Reassessment of fixed structure, SPM and sealines for Edison                                                            | Technical coordinator                 | 340              |
| CALM Porto Petroli Genoa                     | 2012               | Preliminary Design of a CALM buoy for offshore Port of Genoa                                                            | Offshore engineer                     | 30               |
| LOANGO FIELD                                 | 2010-15            | Reassessment of 7 offshore platforms for ENI                                                                            | Offshore engineer                     | 90               |
| New RINA Rules for Fixed Offshore Platforms  | 2015-16            | Development of new RINA Rules for fixed offshore platforms classification                                               | Team Leader and Offshore Expert       | 200              |
| New RINA Guidelines for Offshore Wind Farms  | 2017-21            | Development of RINA guidelines for fixed and floating offshore wind farms                                               | Team Leader and Offshore Expert       | 240              |
| Independent Verification for Risk assessment | 2016-23            | Verification of SECE for applications of EU Offshore Directive for safety cases                                         | Team Leader and Offshore Expert       | 1080             |