CURRICULUM VITAE

Name:	**ANTÓNIO JOSÉ DAS NEVES MARCELO**
Profession	Civil Engineer
Date and place of Birth	1954 – Mozambique
Nationality	Mozambican
Years with firm	25 years
Name of Firm	**SECON, LDA**.
Membership of Professional Orders:	
	ORDEM DOS ENGENHEIROS (Portugal)
	ORDEM DOS ENGENHEIROS (Mozambique)
	IABSE- International Association for Bridges and Structural Engineering
	APAE- Associação Portuguesa de Avaliadores de Engenharia
	D.C.U.- Conselho Municipal da Cidade de Maputo, #382, Julho/86

Key Qualifications

Structural civil engineer with 44 years of experience in design and construction of bridges, buildings, warehouses, etc. After 4 years of teaching in University joined a Contractor for 15 years and after that he has been acting as designer, consultant and supervisor of construction works.

Education and specific skills

1976- **Civil Engineering Lic**. (Structures), UEM, Moz

2002 - **Initiation of Arbitration** – held by CACM- Centro de Arbitragem, Conciliação e Mediação

2015 - **Course of Constrution Claims and Dispute Resolution Master** Class JHB- RSA, taught by expert Mr Nigel Grout, FCIArb, FCIHT, DiplCArb organized by NEOEDGE of Singapore

EMPLOYMENT RECORD

Period	Employer/Position and main activities
1995-....	SECON- Serviço de Engenharia e Consultoria, Lda., Mozambique
	Structural civil engineer, consultant, managing director, shareholder
1993-1995	Own activity
	Structural civil engineer, consultant, supervisor of works
1979-1993	SOGEL- Sociedade Geral de Empreitadas, Lda., Mozambique Technical director, structural engineer, supervision of work
1976-1980	UEM- Universidade Eduardo Mondlane- lecturer in structural matters

SELECTED ASSIGNMENTS

BRIDGES

Design:

- Rehabilitation of bridge over Licungo river, Zambézia
- Provisional repair of Macarretane dam roadway bridge, Gaza
- Final repair of above bridge
- Provisional repair of Macarretane dam railway bridge, Gaza
- Demolition and rebuild of Mazimechopes railway bridge, Gaza
- Rehabilitation pre-design of bridge over Zambeze at Tete, Tete
- Reconstruction of roadway bridge over Gorongosa river, Sofala
- Reconstruction of 3 railway bridges at Doa-Caldas Xavier railwayline, Tete

- Roadway viaduct and railway viaduct over Maputo-Ressano Garcia express roadway, included on Maputo Drainage System
- Pre-design of roadway bridge over Limpopo river at Chókwè, Gaza
- Bridge at Conhane, Macia-Chókwè road, Gaza
- Provisional repair of Camp One bridge that was the support of water mains to Maputo City, destroyed by Domoina tropical cyclone, Feb. 1984
- Provisional repair of railway metallic bridge near Boane, Mozambique - Swaziland line, destroyed in the same circumstances as Camp One's
- Costa do Sol roadway bridge - alternate to tender design, Maputo City
- Drift crossing Umbeluzi river in Mafuiane-Massaca road
- Pier with 120 m, 12m spans, RC, at Inhaca island (incl. supervision)
- Manica Bridges design (3), Nhancuarara, Mussapa, Lucite
- Chokwé Bridge in association with COWI/HIFAB

Construction:

MAPUTO CITY AND MAPUTO PROVINCE

- Railway viaduct with prestressed concrete deck at Julius Nyerere Av. extension
- Provisional repair of Camp One bridge which lasts for 4 x 24 = 96 hours continuously
- Provisional repair of railway metallic bridge near Boane
- Vulcano viaducts, included on Maputo Drainage System, piled foundations, prestressed concrete decks
- Costa do Sol bridge, 54 m long, 3 continuous reinforced concrete haunched deck, Franki type piled foundations, special conditions of aggressive surrounding air and water to concrete, some operations made on tidal basis system

GAZA PROVINCE

- Railway and roadway bridges, Macarretane dam (provisional and final solutions)
- Railway bridge, Mazimechopes
- Roadway bridge over Changane river, close to Chibuto; three spans, simple supported prestressed concrete composite beam's deck, 2 bottom hinged piers- not completed due to security reasons- 1983
- Conhane road pontoon bridge, simple supported single span

Consulting:

- Appraisal of structures on 3 different roads in different provinces to supply necessary information to begin pre - appraisal of rehabilitation projects - contracted by Consultec
- Analysis of strength capacity of Pinto Teixeira roadway bridge to support an abnormal load convoy which carried a 25 MW gas turbine to Maputo power station - contracted by Natro and Walon
- Analysis of strength capacity of the old bridge over Matola river to carry an abnormal load of a crane weighing 96 tf- contracted by Cometal-Mometal
- Translation of "The Bridge Inspector Handbook" - contracted by Sweroad
- Assessment of all bridge structures between Gorongosa and Caia and prepare tender documents- drawings, bill of quantities- contracted by MK Centennial (USA) and Consultec
- Assessment of bridge over Save river on EN1 to prepare proposal for repair design tender- contracted by Profabril
- Assessment of all bridge structures along the roads from Zimbabwe to Cahora Bassa and structural design analysis for behaviour under abnormal loads crossing
- Road survey along EN4 and EN2 from Ressano Garcia to Maputo to assess all bridge structures and culverts and structural design analysis for behaviour under abnormal loads crossing to MOZAL- contracted by Rotran

- Temporary strengthening design of RC bridge over Movene river in EN2 to allow crossing of abnormal loads to MOZAL- contracted by EMS-LAVALIN
- Supervision of Inhaca pier
- Prepare tender documents for design and supervision of bridge over Limpopo river at Chókwé and collection and checking of data, preparation of technical works- top surveying, foundations analysis, traffic survey, lab soil tests (ongoing contract with ANE)- association to COWI and HIFAB
- Supervision of Chokwé bridge, Resident engineer
- Supervision of Moamba Bridge, Team Leader
- Analysis of structural safety of Licungo bridge in Mocuba after abnormal floods in 2013 (issue of report to allow reopening of traffic)
- Design and supervision of works on rehabilitation of roof workshop structures at AFRISAL, Matola after damages due to very strong winds
- Supervision of construction of molecular biology laboratories at Mavalane and Machava hospitals

OTHER STRUCTURES:

Design:

- Structural design of all buildings of Mocuba textile factory, Zambézia
- Cathedral for 3000 people, services, underground 3 levels car parking
- Structural design for INSITEC buildings, 25Th Sept. Av., Maputo
- Structural design of building with 20 Floors, Maputo
- Structural design of air conditioned centrals and underground reinforced concrete air return ventilation ducts of Riopele textile factory, Marracuene, Maputo
- Storage petrol tank of 12.500 m3 capacity, cylindrical, prestressed concrete, Maputo
- Piled foundations for rice metallic silo's complex, 10.000 ton capacity and annexed installations (electric panels control house, boiler plant house, coal quay, rainwater drainage system, etc.)
- Upgrading of strength in some areas of factories to accommodate new heavy equipment, using metallic structures as well as reinforced concrete (Zorba and Fasol, Maputo; Mozambique Industrial, Sofala and Nampula)
- New ward at Quelimane hospital, two-storey building, 2200 m2 total area
- Silo for vehicles with 5 floors and basement
- Foundation for cylindrical metallic grain silos
- RC silos block for wheat
- Two-storey building for laboratory, bakery and amphitheatre

Construction of structures:

Maputo City and Maputo Province

- Riopele textile factory, Marracuene
- Extension of EELL factory (dairy products), 1800 m2 warehouse with 30 m arch span metallic structure, metallic hangar for 30 trucks
- Rehabilitation and improvements at Nautical Training School and construction of new buildings
- LEM (National Engineering Laboratory): 1760 m2 ground slab to accommodate civil engineering works reduced patterns with channels; 600 m3 underground storage water tank; 110 lm long channel to test flow meters
- Foundations for fishing nets factory, Maputo City
- Total rehabilitation and extension of USAID Headquarters in Maputo from two existing two-storey residential buildings, mainly security reasons governing
- Partial extension of US Embassy headquarters, mainly security reasons governing
- 6 lm high reinforced concrete structure to support a 7 lm diameter dish parabolic antenna at USIS Headquarters

- Construction of approx. 2.000 m2 covered workshop area to repair Navy boats and ships, 19 lm two eaves span metallic construction frame, Catembe
- Warehouse and workshop at FDChocolates, Matola
- 2 four-storey apartment buildings, approx. 1.000 m2 covered area each

Gaza Province

- Warehouses and drying yards in some areas within Limpopo gravity irrigated scheme to CAIL
- Rice cylindrical metallic silos piled foundations and other works above referred

Consulting:

After leaving UEM Mr. Marcelo was invited sometimes to join evaluation teams to discuss diploma thesis of pupils from civil engineering department-structures field, or even to be the consultant of other pupils. He was also invited to teach Bridges subject late 1985.

As **Engineer** Mr. Marcelo was supervising a few contracts on reinforced concrete structures, such as buildings, installation of new heavy equipment in existing factories structures. He also was leading many supervision teams for contracts of schools, health centres, training centres, hospitals, etc.

As **Consultant** Mr. Marcelo was invited to issue reports about different subjects such as:

- Conditions of some Mozambican enterprises with relationship to construction industry area in order to make the appraisal of their abilities to receive World Bank support within PRE regulations - contracted by Partex to join a team of Coopers & Lybrand (London);
- Assessment of all buildings in Marromeu and Luabo after the civil war in Mozambique, included in an international team to issue a rehabilitation project- contracted by Partex and Alcântara
- Rehabilitation of a hotel in the sea coast, highly deteriorated due to attack of marine air and no maintenance was done along the previous 10 years;
- Proposal to tender to Surveying on Chókwè Irrigation Scheme - contracted by Hidrogest;
- Analysis of strength capacity of a portal to carry sluice gates of 8 tf for flood control system at Macarretane weir- contracted by Cometal-Mometal;
- Translation of book "BRIDGE INSPECTOR's HANDBOOK" for DNEP/MOPH;
- Technical translations of documents and drawings - contracted by Austral;
- Technical reports of structural behaviour of buildings after occurrence of disasters (fire, impact, etc.);
- Civil engineering evaluation of many buildings, factories and complexes in Mozambique - contracted by Profabril, KPMG-Peat Marwick, Riopele Têxteis, SOSUN, etc.;
- Structural analysis of all buildings at OLAM factory at Beira after IDAI cyclone in 2019;
- Structural analysis of two-storey building affected by execution of deep foundations aside of the plot in Maputo

DISPUTE RESOLUTION AND CONSTRUTION CLAIMS

- Soares da Costa X Lebombo Society (Referee of the CACM) - Work of the Namaacha Casino
- Abrantina X UEM (Referee Administrative Court) - remodeling work of the Faculty of Medicine
- Mozsharing X Client - (Referee for amicable settlement) - housing Work in tourist townhouse
- PETROMOC x KAYA – (Referee of the CACM) – Commercial Dispute

LANGUAGES

	Speaking	Reading	Writing
Portuguese	Mother tongue		
English	Good	Good	Good
French	Fair	Good	Fair

ATTENDANCE TO SEMINARS, CONGRESSES

- International Concrete Symposium- May 1984, Johannesburg
- New Technologies in Structural Engineering- Jul 1997, Lisbon
- Developments in Short and Medium Span Bridge Engineering- Jul 1998, Calgary, Canada
- Presentation of Paper about rehabilitation of bridges at Gaza Province in 1979-83 included on Course on Rehabilitation of Structures held at LEM under the support of LNEC

Certification

I, the undersigned, certify that to the best of my knowledge and belief, this bio data correctly describes my qualifications, my experience and myself.

Date: 26/03/2021

Signature of Staff Member and authorized representative of the firm — Day/Month/Year

Full name of staff member: António José das Neves Marcelo

Full name of authorized representative: