

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
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EPAS ID: PAT5113163

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
GUIDO MANACORDA	07/10/2018

**RECEIVING PARTY DATA**

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**PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15962201

**CORRESPONDENCE DATA**

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*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**PATENT**

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<b>ATTORNEY DOCKET NUMBER:</b>	KSVR-0090-US
<b>NAME OF SUBMITTER:</b>	ELLEN M. DRAEGERT
<b>SIGNATURE:</b>	/Ellen M. Draegert/
<b>DATE SIGNED:</b>	08/28/2018

**Total Attachments: 3**

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**INVENTION ASSIGNMENT**

WHEREAS, I, **Guido MANACORDA** (hereinafter referred to as ASSIGNOR), **together with Manfred SCHAUERTE and Devis DEI**; having invented certain inventions relating to a **Drill head for earth boring, Drilling device for earth boring having the drill head, Method to detect objects while earth boring, and Use of direct digital synthesizer as a signal in detecting an obstacle in earth boring;**

And for which a U.S. Patent Application was filed on **April 25, 2018** as U.S. Application Number **15/962,201**;

WHEREAS, **TRACTO-TECHNIK GmbH & Co. KG**, having a place of business at **Paul-Schmidt-Straße 2, 57368 Lennestadt, Germany**; **IDS GeoRadar s.r.l.**, having a place of business at **Via A. Righi, 1-2, 56121 Pisa (PI) Italy**; **Florence Engineering s.r.l.**, having a place of business at **Via Don Giulio Facibeni, 3, 50141 Firenze, Italy**; and **OSYS Technology Ltd.** having a place of business at **391 Benton Road, Four Lane Ends, Newcastle upon Tyne, NE7 7EE United Kingdom**, (hereinafter referred to as ASSIGNEES) are desirous of jointly acquiring the entire interest in, to and under said inventions and any and all patents to be obtained NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, ASSIGNOR hereby sells, assigns, and transfers to ASSIGNEES, jointly, and the successors, assigns and legal representatives of the ASSIGNEES, all of ASSIGNOR's rights, titles and interest in and to said inventions and said application and to any and all inventions described in said application for the United States, its territorial possessions and all foreign countries, and all of ASSIGNOR's right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries, and in and to any and all non-provisionals, continuations-in-part, continuations, divisions, substitutes, reissues, extensions, renewals, and reexaminations thereof, and all other applications for Letters Patent relating thereto or claiming any form of priority thereto or benefit thereof, which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties;

ASSIGNOR requests that any and all patents for said inventions be issued to said ASSIGNEES, their successors, assigns and legal representatives, or to such nominees as they may designate.

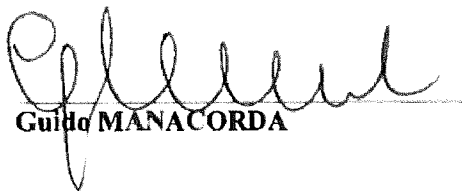
ASSIGNOR authorizes and empowers the ASSIGNEES, their successors, assigns and legal representatives to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from ASSIGNOR.

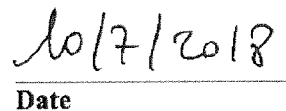
ASSIGNOR hereby consents that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consents to file this or a like document which may be required in any country for any purpose and more particularly in proof of the right of the said ASSIGNEES, their successors, assigns, and legal representatives, to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

ASSIGNOR agrees that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said ASSIGNEES, their successors, assigns and legal representatives, the ASSIGNOR will execute all non-provisionals, continuations-in-part, continuations, divisions, substitutes, reissues, extensions, renewals, and reexamination thereof and any legal equivalent thereof in a foreign country, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings and any legal equivalent thereof in a foreign country; communicate to said ASSIGNEES, their successors, assigns, and legal representatives, all facts known to the ASSIGNOR relating to said inventions and the history thereof; and generally do everything possible which said ASSIGNEES, their successors, assigns or legal representatives, shall consider desirable for aiding in securing, maintaining and enforcing patent protection for said inventions and for vesting title to said inventions and all applications for patents on said inventions in said ASSIGNEES, their successors, assigns and legal representatives.

ASSIGNOR covenants with said ASSIGNEES, their successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that ASSIGNOR has the full right to convey the same as herein expressed.

Signed by:

  
Guido MANACORDA

  
Date