# Brevetti 2015-2020

per brevetti anteriori al 2015 andare al link

| N. | Anno pubblicazione | Titolo brevetto | Autori | Abstract | link |
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| **1** | **2015** | THERMOPLASTIC POLYMER COMPOSITION \| [COMPOSITION POLYMÈRE THERMOPLASTIQUE] | Vitolo, Sandra; Puccini, Monica; Seggiani, Maurizia; Castiello, Domenico | The present invention relates in general to the field of thermoplastic polymeric materials, and more precisely it relates to novel thermoplastic; polymeric compositions defined better herein after that are useful for the manufacture, by hot melt extrusion, of biodegradable artefacts and packaging, compostable and having at the same time performances and costs comparable to those of the products obtained with the traditional non-biodegradable thermoplastic polymeric materials, such as the polyolefIns. | http://hdl.handle.net/11568/815391 |
| **2** | **2015.** | DISPOSITIVO ELETTRONICO MODULARE | Ariani, Marco; Fantoni, Gualtiero; Mazzei, Daniele | Viene previsto un dispositivo elettronico modulare (1) comprendente un primo pannello conduttore (110) comprendente almeno un foro passante (130) un secondo pannello conduttore (120) solidale al primo pannello conduttore (110) ed elettricamente isolato da esso; i pannelli conduttori (110, 120) essendo atti ad essere connessi ad un circuito di alimentazione così da presentare polarità opposte tra loro; il dispositivo elettronico modulare (1) comprende inoltre una piastra di scambio dati (130) atta ad essere solidalmente frapposta tra i pannelli conduttori (110, 120), elettricamente isolata da essi e comprendente almeno una cavità passante (133) atta ad essere sovrapposta al foro passante (110); un attacco (150) atto a mettere un'utenza esterna (10) in connessione elettrica con i pannelli conduttori (110, 120) ed in connessione dati con la piastra di scambio dati (130); ed un'unità di | http://hdl.handle.net/11568/819141 |

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| | | | | controllo (120) posta con l'utenza esterna (10) in almeno in connessione dati attraverso la piastra di scambio dati (130). | |
| **3** | **2015** | Subsea separator | Malaspina, Giuseppe; Stefano TUBIA, Daniele; Andreussi, Paolo | A gas-liquid and liquid-liquid gravity subsea separator which comprises a main body having a substantially spherical shape and defining an internal volume comprising a first, gas-liquid, separation zone and a second, liquid-liquid, separation zone. The main body comprises a feed inlet, a gas outlet, a first liquid outlet and a second liquid outlet, the feed inlet being positioned on the top of said main body and comprising an inlet pipe vertically protruding inside said main body toward its center and extending in said first, gas-liquid, separation zone and in said second, liquid-liquid, separation zone. The inlet pipe comprises a plurality of first openings which are positioned in said first, gas-liquid, separation zone and a plurality of second openings which are positioned in said second, liquid-liquid, separation zone. The gas outlet is positioned on the top of said main body, the first liquid outlet is positioned at the bottom of said main body and the second liquid outlet is positioned on the lateral wails of said main body at an intermediate height with respect to said gas outlet and to said first liquid outlet. | http://hdl.handle.net/11568/905432 |
| **4** | **2015.** | Separator apparatus for gas-water-oil mixtures, and separation process | Andreussi, Paolo | The present invention refers to a triphasic separator for the separation of oil-water-gas mixtures used in the field of oil extraction from land or sea wells, suitable in particular, but not exclusively, for installation on the seabed in subsea wells. | http://hdl.handle.net/11568/905352 |
| **5** | **2015.** | VITRECTOMY PROBE | Fantoni, Gualtiero; Rizzo, Stanislao; DE SANTIS, Giovanni; Faraldi, F. | Vitrectomy probe (1) for the removal of the vitreous humour (1a) and comprising a tube (2) adapted to be put into direct contact with said vitreous (1a), defining a main axis (2a) and including an internal passage (21) and a opening (23) enabling said vitreous (1a) to enter said internal passage (21) and comprising at least one | http://hdl.handle.net/11568/815703 |

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| | | | | cutting edge (23a, 23b); a suction system suitable for the creation of vacuum within the internal passage (21) sucking the vitreous (1a) into the opening (23); a drive unit adapted to move said tube (2) defining a vibrational motion (A) of the tube (2) which therefore produces pressure waves reducing the viscosity of the vitreous (1a), and a reciprocating motion (B), having a frequency lower than the frequency of the vibrational motion (A), adapted to enable the cutting edges (23a, 23b) to cut the vitreous (1a). | |
| **6** | **2015** | Convertiplano a doppia ala mobile | Frediani, Aldo; Cipolla, Vittorio; Oliviero, Fabrizio; Rizzo, Emanuele; Cavallaro, Rauno | Il brevetto descrive una macchina volante con doppia ala a box in cui le ali orizzontali sono tiltabili in modo da consentire il decollo e l'atterraggio verticali. | http://hdl.handle.net/11568/751085 |
| **7** | **2016** | PROCESSO DI FABBRICAZIONE DI APPARECCHI ORTODONTICI PER IL RIPOSIZIONAMENTO DENTALE INCREMENTALE | Barone, Sandro; Razionale, ARMANDO VIVIANO; D'Antò, Vincenzo | Il brevetto riguarda un processo di fabbricazione di apparecchi ortodontici per il riposizionamento dentale incrementale. In particolare, si riferisce alla generazione di un set di dati digitali rappresentanti una disposizione dentale finale ottimizzata per l'impiego in un relativo processo di fabbricazione. L'invenzione si colloca nel campo dell'ortodonzia e, più nello specifico, nel campo della progettazione di trattamenti ortodontici facenti impiego di apparecchi ortodontici del tipo trasparente o invisibile. | http://hdl.handle.net/11568/839406 |
| **8** | **2016** | Struttura di teleferica perfezionata | FREDIANI, ALDO | Uno dei fattori di sviluppo più interessanti della economia agricola delle zone interne è l’utilizzo razionale delle biomasse. Le biomasse possono essere utilizzate in modi diversi, quali: per produzione di energia elettrica, per produzione di calore e, infine nel caso dei boschi di castagno, per il ripristino della filiera alimentare della castagna. La produzione di energia elettrica da biomasse è resa possibile e, anzi, sempre più conveniente dalla messa a disposizione di sistemi con efficienza sempre più elevata quali i moderni | http://hdl.handle.net/11568/838746 |

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| | | | | generatori con motori alimentati dalla gassificazione del cippato. A titolo di esempio, un generatore da circa 50 KW elettrici ovvero, con un utilizzo di 7000 ore/anno, 350MWora/anno, occupa un container standard, ha un motore termico da circa 100KW e richiede una quantità di circa 300 tons di legna/anno. Un simile sistema potrebbe coprire il fabbisogno di circa 50 famiglie, alimentare con il calore prodotto un sistema di teleriscaldamento o un insieme di serre per produzioni agricole ad elevato valore aggiunto e dare lavoro continuo a diverse persone impiegate per il taglio e manutenzione dei boschi, per la alimentazione e manutenzione dei gruppi e per la eventuale produzione agricola connessa alle serre. Il costo di ogni sistema non dovrebbe superare nel prossimo futuro 200.000 Euro ed è quindi competitivo, in regime di incentivi pubblici quali quelli attuali, seppure ridotti. | |
| **9** | **2016** | APPARECCHIATURA E PROCESSO DI FABBRICAZIONE DI DISPOSITIVI DENTALI ORTODONTICI E/O PROTESICI | Barone, Sandro; Razionale, ARMANDO VIVIANO; D'Antò, Vincenzo | Il brevetto riguarda un'apparecchiatura e un processo di fabbricazione di dispositivi dentali ortodontici e/o protesici, in particolare di apparecchi ortodontici per il riposizionamento dentale incrementale, ma impiegabile anche per la fabbricazione di altri dispositivi dentali quali ad esempio bite, guide occlusali, dispositivi protesici, guide chirurgiche e così via. In particolare il brevetto si riferisce alla realizzazione di un'apparecchiatura di fabbricazione di dispositivi dentali ortodontici o protesici completamente automatizzata. Il brevetto si colloca nel campo dell'ortodonzia e, più nello specifico, nel campo della progettazione di trattamenti ortodontici facenti impiego di apparecchi ortodontici del tipo trasparente o invisibile. | http://hdl.handle.net/11568/839409 |
| **10** | **2016** | Tiltrotor with double mobile wing | Frediani, Aldo; Cipolla, Vittorio; Oliviero, Fabrizio; Rizzo, | A convertiplane structure (100), having a longitudinal axis x and a plane n orthogonal to it, comprises a main wing (120) arranged to rotate about at least one | http://hdl.handle.net/11568/838323 |

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| | | | Emanuele; Cavallaro, Rauno | transversal rotation axis y, an auxiliary wing (130), which is located back with respect to main wing (120), and arranged to rotate about at least one transversal rotation axis y', at least two main propellers (220) located on the main wing (120), and at least two auxiliary propellers (230) located on the auxiliary wing (130). The auxiliary wing (130) is located at a vertical height higher than main wing (120). Two vertical wings (140) are also provided located in such a way that the projections on the plane n of the main wing (120), of the auxiliary wing (130) and of the vertical wings (140) shape a closed polygon, thus reducing the induced drag and increasing the overall aerodynamic efficiency. | |
| **11** | **2016** | Method and system for preparing code to be executed by programmable control devices | Baldi, Giacomo; Fantoni, Gualtiero; Mazzei, Daniele; Montelisciani, Gabriele | The present invention is directed to methods and systems for preparing and transferring code to a memory of a programmable control device, particularly a non-volatile memory image representing ROM of a device hosting a virtual machine (VM). | http://hdl.handle.net/11568/816570 |
| **12** | **2017** | A method and apparatus for the isokinetic sampling of a multiphase stream | Andreussi, Paolo | The present invention refers to a method for the isokinetic sampling of liquids and gases present in streams having many fluid phases, and to an apparatus suitable for achieving it. The method and apparatus have application in particular in the field of oil extraction, wherein, after the extraction of liquid and gaseous hydrocarbons possibly accompanied by water and suspended solids, it is necessary to know the composition of the mixture extracted and also the flow rate of the single phases. | http://hdl.handle.net/11568/905440 |
| **13** | **2017** | Metodo di misurazione dello spessore di dispositivi ottenuti per termoformatura | Barone, Sandro; Razionale, ARMANDO VIVIANO; Paoli, Alessandro | Nessun abstract | http://hdl.handle.net/11568/853765 |

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| **14** | **2017** | STINGER | Paolo Neri;Ciro Santus | L’analisi dinamica di strutture meccaniche generalmente prevede l'applicazione del carico su un'area piccola e con una sola componente di forza. Per ottenere questo in modo accurato, si propone uno stinger innovativo che filtra le componenti indesiderate di carico mediante il contatto puntiforme in corrispondenza di entrambe le estremità, garantendo una configurazione a doppia cerniera. | http://hdl.handle.net/11568/1039164 |
| **15** | **2017** | WEARABLE VISOR FOR AUGMENTED REALITY | Vincenzo Ferrari;Emanuele Maria Calabrò | An augmented reality system (10) arranged to superimpose, in front of a user, a virtual light field of a 3D content to the real light field of a surrounding environment. The system (10) provides an augmented reality display (100) comprising a light field display (110) arranged to create a virtual light field of the 3D content, and a beam combiner (130) arranged to deviate the light rays emitted by the virtual light field of the 3D content and project them in front of a user in order to overlap the virtual light field of the 3D content to the real light field of the surrounding environment. Furthermore, the augmented reality display (100) is adapted to be worn by the user on its own head. The augmented reality system (10) also comprises a tracking system (140) arranged to real time monitor position and orientation of a moving reference system S 1 integral to the augmented reality display (100) with respect to a fixed reference system S 2 integral to surrounding environment. The system (10) comprises then a control unit (150) arranged to receive from the tracking system (140) an information about position and orientation of the moving reference system S 1 and to determine the virtual light field of the 3D content coherent with position and orientation of the moving reference system S 1 with respect to the fixed reference system S 2 . | http://hdl.handle.net/11568/953925 |

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| **16** | **2017** | A filter apparatus and a method for removing dissolved organic compounds from a water based liquid | Tasca, ANDREA LUCA; Ghajeri, Farnaz; Fletcher, Ashleigh | Nessun abstract | http://hdl.handle.net/11568/1037351 |
| **18** | **2018** | Nodo strutturale per il collegamento di elementi di involucro edilizio, e struttura reticolare comprendente detto nodo | Maurizio Froli | La presente invenzione riguarda un nodo strutturale perfezionato per collegare tra di loro elementi di involucro edilizio o di strutture in genere, quali pannelli poligonali opachi o trasparenti, in particolare pannelli poligonali in vetro. | http://hdl.handle.net/11568/916931 |
| **19** | **2018** | Reticular structure with nodes, rods and panels | Froli, Maurizio; Laccone, Francesco | A reticular structure (1 ) comprises rods (10) that are connected at their own ends by nodes (20) and form polygonal meshes (2) to be covered by respective polygonal panels (50). Each node (20) comprises a body (21 ) whose peripheral region (22) has, in a same half-space (4), through holes (23) for receiving the end portions of the rods (10) at mutual inclination angles (λ,λ*). The body defines a central manoeuvre space (3) in which lock elements (12) for the rods are arranged. In an aspect of the invention, in the opposite side of the half-space (4) a stiff bridge element (31 ) extends between portions (24) proximate to non-adjacent, e.g. opposite through holes (23), restoring the node continuity so that forces can be exchanged between the corresponding rods, while maintaining a manoeuvre space (3) accessible for mounting operations. Advantageously, support elements (40) of the panels (50) are provided, each support element having a connection portion (41 ) on the peripheral region (22) between two adjacent through holes (23) | http://hdl.handle.net/11568/973213 |

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| | | | | and, at a predetermined distance (L), a support portion (42) for receiving a vertex (51 ) of a panel. This way, panels (50) are spaced from the rods (10), the panels can be arranged adjacent to each other and can be sealed at their edges, which makes it easier to obtain a simplifying the waterproof structure. In another aspect, the support elements (40) are slidably arranged with respect to the peripheral region (22) along bisectors (b) of the inclination angles (λ) of adjacent holes (23) and the connection portion (41 ) of each support element (40) in configured to abut against the vertex (51 ) of a respective panel (50). Lock means (43) are provided to lock the panel with respect to the peripheral region (22), in order to pre-compress the panels (50). | |
| **20** | **2018** | Mechanical combustion-engine-driven fluid pump (Magnetorheological Electrodynamic Permanent Magnet Clutch) [US9976606 - US2015260240A1] | Bucchi, Francesco;Rizzo, Rocco;Musolino, Antonino;Forte, Paola;Frendo, Francesco | A mechanical combustion-engine-driven fluid pump includes an input shaft driven by a combustion engine, a pumping unit comprising a pump rotor, and a clutch arranged between the input shaft and the pump rotor. The clutch comprises an input clutch body, an output clutch body, an electroconductive element, a permanent magnet element, and an actuator. The clutch transfers a rotation of the input clutch body to the output clutch body in an engaged clutch state. The closed clutch liquid gap is formed between the input clutch body and the output clutch body, and is filled with a magneto-rheological clutch liquid. The electroconductive element co-rotates with the output clutch body. The permanent magnet element co-rotates with the input clutch body and is shiftable between an engaged position and a disengaged position. The actuator moves the permanent magnet element between the engaged position and the disengaged position. | http://hdl.handle.net/11568/1099200 |

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| **21** | **2018** | Reticular structure with nodes, rods and panels | Froli, Maurizio; Laccone, Francesco | A reticular structure (1 ) comprises rods (10) that are connected at their own ends by nodes (20) and form polygonal meshes (2) to be covered by respective polygonal panels (50). Each node (20) comprises a body (21 ) whose peripheral region (22) has, in a same half-space (4), through holes (23) for receiving the end portions of the rods (10) at mutual inclination angles (λ,λ*). The body defines a central manoeuvre space (3) in which lock elements (12) for the rods are arranged. In an aspect of the invention, in the opposite side of the half-space (4) a stiff bridge element (31 ) extends between portions (24) proximate to non-adjacent, e.g. opposite through holes (23), restoring the node continuity so that forces can be exchanged between the corresponding rods, while maintaining a manoeuvre space (3) accessible for mounting operations. Advantageously, support elements (40) of the panels (50) are provided, each support element having a connection portion (41 ) on the peripheral region (22) between two adjacent through holes (23) and, at a predetermined distance (L), a support portion (42) for receiving a vertex (51 ) of a panel. This way, panels (50) are spaced from the rods (10), the panels can be arranged adjacent to each other and can be sealed at their edges, which makes it easier to obtain a simplifying the waterproof structure. In another aspect, the support elements (40) are slidably arranged with respect to the peripheral region (22) along bisectors (b) of the inclination angles (λ) of adjacent holes (23) and the connection portion (41 ) of each support element (40) in configured to abut against the vertex (51 ) of a respective panel (50). Lock means (43) are provided to lock the panel with respect to the peripheral region (22), in order to pre-compress the panels (50). | http://hdl.handle.net/11568/973213 |

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| **22** | **2018** | System, device and method for securely transferring information from a hardware to a blockchain | Baldi, G.; Fantoni, G.; Mazzei, D.; Montelisciani, G | Nessun abstract | http://hdl.handle.net/11568/942215 |
| **23** | **2018** | Mechanical combustion-engine-driven fluid pump (Magnetorheological Multidisk Permanent Magnet Clutch) [US10024322 - US2015308432A1] | Bucchi, Francesco;Rizzo, Rocco;Musolino, Antonino;Forte, Paola;Frendo, Francesco; | A fluid pump includes an input shaft, a pumping unit comprising a pump rotor, and a clutch arranged between the input shaft and the pump rotor. The clutch comprises at least two input clutch disks, at least two output clutch disks, a permanent magnet element, and an actuator. The at least two input clutch disks and the at least two output clutch discs together define at least two clutch liquid gaps which are filled with a magneto-rheological clutch liquid. The permanent magnet element shifts between an engaged position wherein a magnetic field of the permanent magnet element penetrates the at least two clutch liquid gaps with a high magnetic flux, and a disengaged position wherein the magnetic field of the permanent magnet element is less than in the engaged position. The actuator moves the permanent magnet element between the engaged position and the disengaged position. | http://hdl.handle.net/11568/1099194 |
| **24** | **2018** | Mechanical combustion-engine-driven fluid pump [US10024322B2] | Squarcini, Raffaele;Bartalesi, Elisa;Armenio, Giacomo;FORTE, PAOLA;FRENDO, FRANCESCO;RIZZO, ROCCO;BUCCHI, FRANCESCO;Ferri, Andrea | Nessun abstract | http://hdl.handle.net/11568/782147 |

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| **25** | **2019** | Metodo e apparato per generare dati dentali atti alla fabbricazione di un allineatore dentale | Barone, S.; Bordegoni, M.; Montalto, A.; Razionale, A. | Nessun abstract | http://hdl.handle.net/11568/1016992 |
| **26** | **2020** | Scaling Method Based on a Pointwise Superposition Procedure and System thereof. | Mattia Moda;Bernardo Disma Monelli;Leonardo Bertini; | A scaling method for simulating any manufacturing process employing a moving heat source is disclosed. The method is intended to melt or sinter a material, wherein the heat source is driven according to a defined path. The method requires a meso-scale model, which evaluates the physical quantities representative of the process-induced thermal history and residual stress and strain fields for each set of process parameters employed for the given material. The meso-scale results, obtained by modeling one or multiple scan lines, are transferred to the elements of the macro-scale finite element mesh based on the defined path. The scaling is performed pointwise and followed by an averaging operation on the values of the physical quantities computed inside each element of the macro-scale finite element mesh. Finally, a macro-scale simulation is executed for evaluating the residual stresses and distortions arising throughout the entire manufacturing process. | http://hdl.handle.net/11568/1085260 |
| **27** | **2020** | DISPOSITIVO PROTESICO PER RICOSTRUZIONE TIMPANOPLASTICA | Berrettini S;Danti S;Milazzo M;Forli F | Nessun abstract | http://hdl.handle.net/11568/1138285 |