# CURRICULUM VITAE



## PERSONAL INFO

| | |
|---|---|
| Name | **REMIGIO BERRUTO** |
| E-mail | **remigio.berruto@unito.it** |
| Citizenship | **Italian** |
| Born date | **JULY 13, 1963** |

## WORK EXPERIENCE (LAST 5 YEARS)

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|---|---|
| • Date (from – to) | From November 1, 2002 to current |
| • Name and address of working place | University of Turin – Department of Agricultural, Forestry and Food Sciences, Largo Braccini 2, 10095, Grugliasco (TO), Italy |
| • Role | Associate professor - AGR/09 agricultural and biosystem engineers |
| **• Date (from – to)** | From June, 2017 to current |
| **• Name and address of working place** | University of Florida – Department of Agricultural and Biological Engineering, Gainesville, FL, USA |
| **• Role** | Courtesy Associate Professor |
| • Date (from – to) | From July 16, 1990 to October 31, 2002 |
| • Name and address of working place | University of Turin – Department of Agricultural, Forestry and Food Sciences, Largo Braccini 2, 10095, Grugliasco (TO), Italy |
| • Role | Assistant professor |

## EDUCATION AND TRAINING

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| • Date of achievement | August 6, 2004 |
| • Recipient | Purdue University |
| • Qualification | PhD in Agricultural Systems Management |
| • Date of achievement | 11 July 11, 1987 |
| • Recipient | The University of Turin, School of Agriculture |
| • Qualification | Master, score 110/110 cum Laude |

## PROFESSIONAL COMPETENCES

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|---|---|
| • Mother tongue | Italian |
| • Foreign language | English, French |
| • Reading skills | Excellent |
| • Writing skills | Good |
| • Oral | Good |

ICT skills

Using personal computers. Good knowledge of SQL relational database and CMS Drupal. Excellent knowledge of office package (Word, Excel, Power Point, Access). Good knowledge of ASP and MVC for creating dynamic Web pages. Excellent knowledge of simulation language Extendsim for discrete event simulation. Knowledge of GAMS CPLEX, software for linear programming. Linear and mixed-integer programming applications. Knowledge of Matlab.

Driving license

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## RESEARCH ACTIVITY

The research carried out in the agricultural engineering sector (AGR / 09), it has been focused on the study of logistics and sustainability of agricultural operations. The following describes the main lines of research that have characterised the last decade of scientific activities in the role of associate professor.

Sustainability and optimising the use of resources

The introduction of intelligent machines, autonomous vehicles for agricultural operations, together with those who are new detection and sensor technologies will allow for higher efficiency and reduced environmental impact of the operation in agricultural development. However, to take full advantage of these technologies, we need to develop new management approaches, at strategic, tactical and operational level.

It must then apply methods of operations research to plan routes and to make appropriate scheduling of activities both within the plot. We have to consider also a plan that goes beyond corporate boundaries, considering not only the operation in the field but also all logistics operations that make complex optimisation of the work of operators' machines.

The tools that we can use to make this improvement of the efficiency of the machines are the vehicle routing problem, sharing trailers from nearby machines, work patterns that save time and labour.

The combined use of heuristic algorithms, linear programming and discrete events simulation allow savings of up to 20% of energy consumption and costs associated with the operation concerning the same activity carried out traditionally.

A level of technology transfer has been made of the portals where you can evaluate with sufficient precision the costs of operation in the field and logistical operations. These results are related to a configuration of plots related to a real company regarding shape, surface distance from the farm centre and the plants that use the production (e.g. the distance of the plot from the biogas plant). The portal is available on site and is www.bioresource4energy.eu; it is of free use.

On the portal, we can compare different cultural systems, as well as economic balance an energy balance is also calculated and is finalising the count of carbon dioxide emissions. The system was used to evaluate different agronomic cultural practices, such as the biological one, the traditional and the low mechanical input.

Another very interesting technology to make it sustainable in corn production is the slow drying of the product, which uses for drying when possible the energy contained in the air. Preliminary tests have enabled energy savings of 45-55% depending on environmental conditions.

Similarly, the development of a corn header that makes during grain harvest the swath of the stalks during the harvesting of the grain opens new openings both economically and environmentally sustainable use of this type of residues.

## Simulation of agricultural operations

The simulation has always been a field on which prof. Berruto worked since 1988, where with simulation software has built a model to improve the use of grape harvesters and investigate in particular the length of the rows and its effect on downtime and timing discharge of these machines. When the simulation involves transactions that involve flows of materials (collection products in the field, transport, distribution of products in the field and replication), many variables come into play. In addition to the shape and size of the plot and the distance of the same from the center company, is the variability and the quantity produced in the plot. This variability can lead us to have to over-dimension the transport equipment to cope with the crop yield and harvester capacity. Especially the new harvesting machines with great capacities requires adequate transportation construction site configuration.

The climate factor may, in turn, result in a variable configuration of the working chain to face moments when the window to do the operations is reduced due to adverse environmental conditions.

They are studying the regional simulations to assess the impact of specific policies on the traffic and therefore on the performance of means used in transportation.

Concerning the harvesting operations and transport grain storage, they are a complex system, dynamic and interactive. To study it properly one must begin by field surveys to define a model that can reflect what is happening in the field with minimal errors. The harvest routes are represented as a set of a single pass, each characterised by a length, width and production. This representation simplifies the simulation and allows the maximum accuracy of the model.

The model per se does not allow an optimisation but allows to verify procedures of scheduling and optimisation in real conditions characterised by a particular variability of the parameters, because it uses the stochastic parameters that vary around the statistical distributions entered as input in the model.

The biomass, characterised by a low energy density and low value, it is even more subject to the logistic costs. As the distance transportation may become a limiting factor in the collection process, and this is even more important when the time frame, due to adverse weather events is reduced and product masses are still relevant for the harvesting process.

The model, in this case, allows understanding where the bottlenecks, and what actions can be done to improve the situation. The scenarios may require a change in resources or a different location of the same. In some cases, it is also possible to reduce the manpower while maintaining the performance of the shipyard to acceptable levels.

To correctly size the construction site for the collection and transportation of grains different simulation models are designed to help to:
• Evaluate the behaviour of the system in different scenarios (management strategies, composition of the shipyard, plots of characteristics, etc.);
• Choose the machines and labour suitably to be employed considering the technical, logistical and economic;
• To study the effect of innovations in the field or at the storage centres on the overall system performance;
• Assess the impact of traceability procedures.

Investigations in the field at the national level were conducted on rice, wheat in the south of Australia and Argentina on corn. The study was carried out within a collaboration with INTA logistic advantages slow drying and the use of silo-bags as temporary storage of grain.

## Biomass logistics and transport of manure to the fields

Research in this field concerning the optimal sizing:
• Transport of the silo maize with the combined use of simulation models and linear programming. The optimisation can be related to economic or energy objectives;
• Transport of manure with different working chain composition, slurry doses distributed and the distribution methods chosen (tank spreader and umbilical method). Even in this case, we combine linear mixed programming models that take account of the technical constraints (e.g. Weekly hours of labour, periods of soil cultivation sowing) and those legislative and environmental, as well as the conditions under which they must operate the machines.

## Supply chain logistics of fresh and seasonal produce

The objective of the research is to study the potential logistics solutions regarding transport, product aggregation and flow of information to help to improve on one hand the quality of the product made it to the customer, and secondly the amount sold.

It tries to analyse the entire supply chain, and on the other hand to raise awareness among operators towards the use of new logistics technologies and strategies to strengthen the supply chain and its environmental sustainability with system perspective, acting mainly on what is the sharing of information to the various links in the chain. It was developed a model to predict the demand for seasonal products that allows a reduction of the storage by 86% while maintaining the same level of service for the consumer, provided that specific information be shared among the logistics chain links.

| Renewable energies for alpine pasture | To evaluate the electrical energy produced from renewable sources by a plant in alpine sites, we proceed with punctual reliefs on the performances of the individual components of the system (photovoltaic, micro hydraulics, generator, batteries). The individual components forming part of the system are subsequently presented with algorithms that simulated their dynamic performance during the season. |

The allows, after entering the significant parameters of the system, to evaluate its behaviour with the evolution of the pasture season and the needs of the farm through simulation, hour by hour, the energy situation and the battery charge status. The program, used by the Piedmont Region for the design verification of applications for financing renewable energy, currently available in Italian, French, English, and German languages. It was distributed together with a book on renewable energies in the mountain pastures in about 900 copies to industry insiders, technicians and professionals, also published in Italian and French.

For the chain of production of woodchips for energy purposes, we have been developed a series of management resource planning tools to plan the supply of wood chip and cuts the cost of woodchip production and transport.

Finally, it was also studied a prototype of a hydroelectric power station from 600 W maximum power, with the aim to determine their behaviour in different flow rate and pressure conditions.

| Experimental teaching methodologies and technology and innovation transfer | A variety of mechanisms are used to provide awareness, training and education for the stakeholder groups. Among these methods for the transfer of knowledge, there are services and tools for farmers, such as web-based portals, Wireless applications, decision support systems, mobile apps and social media. In some cases, the use of plants in the field and pilot demonstrations are very useful in demonstrating the technical and economic feasibility of innovation proposal. Among the activities to be counted web applications and client-server for the development of business point plan considering logistics operations and streams in biogas plants, as well as tools for decision support about business models and business plans for the processes and products in the agrifood sector. It was developed a versatile tool to implement Wizards report on economic and environmental sustainability issues of proposed innovations. Two programs were also produced for the verification of the technical-economic feasibility of small plants (<100 kW), or up to sizes of 1 MWe. Moreover, the research provides the elaboration of 800 business plans of seven European countries. |

The developments in the ICT sector and communication theories have created innovative opportunities to improve acquisition results of notions and to reduce the cost of education. The constructivist approaches that use active learning, supported by online learning, have consistently shown positive results.

In this sense, a modern approach is characterised by the Flipped Classroom class or upside down. The Flipped Classroom refers to a form of a hybrid learning which reverses the traditional teaching system characterised by lectures. In the approach Flipped Classroom offering educational content takes place outside regular lessons using online distribution methods. Content can be followed on any device (PC, tablet, smartphone), anywhere and without fixed hours. The time spent in class is reduced and so is used by students and by the teacher to carry out collaborative and interactive activities related to materials distributed to develop critical thinking. This methodology, learned at UFL was extensively explained during many workshops carried out with Prof. Fedro Zazueta, UFL around the world.

## RESEARCH PROJECTS COLLABORATION

| 2017-2019 | EU Erasmus+ sector alliance – PLANET – Plan For Agriculture Renewable Energy Training |
| 2016-2018 | EU Erasmus+ strategic partnership – ESCAPE – Enhance Sales capacity for Agro Food Products in Europe |
| 2015-2018 | EU Erasmus+ strategic partnership – Food for Growth - Increase key skills in communication and responsibility for the growth of Agro Food |

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| 2015-2017 | EU Erasmus+ FOODLAB-European Food business Transfer Laboratory for stimulating entrepreneurial skills, for fostering innovation and for business creation in the Food Sector |
| 2014-2016 | EU IEE/10 – BIOGAS3, Sustainable Small-scale biogas production from agro-food waste for energy Self-sufficiency |
| 2014-2016 | EU IEE/10 - BioEnergy Farm II, manure, the sustainable fuel for the farm |
| 2014-2015 | POR FESR AGRORES2VALUE, valorisation of corn stover for energy and biofuels production |
| 2013-2015 | EU CIP ECO-INNOVATION, Digesmart, DIGEState from MAnure Recycling Technologies |
| 2013-2014 | Misura 124 PSR GREENDRY, low-temperature drying for energy saving in corn production |
| 2012-2014 | POR FESR On-Biosost, Applicazioni on-line per la sostenibilità delle filiere biodiesel e biogas |
| 2011-2013 | POR FESR  Go.Arundo,  Optimized management of biomass production chain for Arundo donax |
| 2011-2013 | POR FESR BIRS  OASIS, Realization of an innovative integrated system of field technologies, hardware and software for optimising the management of nutrition and irrigation plants and the eco-oriented support of crops with biodegradable materials and complete metabolization by the rhizosphere |
| 2011-2013 | POR FESR Zero-emission, Production and storage of onion and potato for zero emissions, including optimising the use of water resources |
| 2010-2013 | EU IEE/09/637 – BioEnergy Farm, Implementation plan for Bio–Energy farm |
| 2008-2010 | University funds, Optimizing the exploitation of resources in the field and logistical operations. |
| 2008-2010 | PSR, Optimization of  logistics and information flow– Horticultural district, Alessandria |
| 2007-2008 | PSR, Optimizing the logistics of collection sites and transportation of biomass and waste |
| 2005-2009 | MIUR 60%, Development of a simulation model to optimise the logistics of collecting and rice transport operations |
| 2002-2005 | CIPE, Fruit and vegetable chain: food safety and quality management in the phase of post-harvest |

## PRESENTATION AT INTERNATIONAL CONFERENCES

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|---|---|
| 2017 | 11th International European Forum on System Dynamics and Innovation in Food Networks, Innsbruck-Igls, Austria, 13-17 February |
| | CIOSTA, Research and Innovation for the Sustainable and Safe Management of Agricultural and Forestry Systems Palermo, Italy, 13-15 June |
| | Participation in Future Energy Expo, Astana, Kazakhstan, 18-25 June |
| | EFITA CIGR VII WCCA Conference, Montpellier, France 3-5 July |
| | AIIA Agricultural Engineering National Conference, Bari (Italy), 6-8 July |
| | ASABE International Meeting, Spokane, WA, USA 16-19 July |
| | FOOD2030 Conference, Brussels, 16 October |
| 2016 | MECHTECH, Alghero, Italy, 29 May-1June |
| | WCCA AFITA 2016, Suncheon, Korea, 21-24 June |
| | CIGR-AgEng2016, Aarhus, Denmark, 26-30 June |
| | ASABE Annual International Meeting, Orlando, Florida, USA, 17-20 July |
| | 30th EFFoST International Conference, Vienna, Austria, 28-30 November |
| 2015 | 9th International European Forum on System Dynamics and Innovation in Food Networks, Innsbruck-Igls, Austria, 9-13 February |
| | XXXVI CIOSTA & CIGR Section V Conference 2015, St Petersburg, Russia, 26-28 May |
| | ASABE Meeting, New Orleans, 26-29 July |
| | CIGR V SHWA, Lodi, 8-9 September |
| | HAICTA, Kavala, Greece, 17-20 September |
| | 29th EFFoST International Conference, Athens, Greece, 10-12 November |
| 2014 | XVIII CIGR World Congress,  Bejing, China, 16-19 September |
| | WCCA, 2014, San José, Costa Rica, 27-30 July |
| | 1st Silobag conference, Mar del Plata, Argentina, October 13-16 |
| 2013 | EFITA Conference, Torino, Italia, 24-27 June |
| | ASABE Annual International Meeting, Kansas City, July  21-24 |
| | AIIA, Viterbo, Italia, 9-11 Settembre |
| 2012 | 20 th Biomass Conference, Milano, Italy, 18-22 June |
| | ASABE Annual International Meeting, Dallas, TX, USA, 29 July-1 August |
| | CIGR-AgEng2012, Valencia, Spain, 16-19 September |

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| | SHWA, International Conference on Safety, Health and Welfare in Agriculture and Agro – food Systems, Ragusa, Italy, 3-6 September |
| 2011 | 19 th Biomass Conference, Berlin, Germany, 6-10 June. |
| | XXXIV CIOSTA-CIGR V, Wien, Austria, 29 June-1 July |
| | ASABE Annual International Meeting, Louisville, KY, USA, 7-10 August |
| | mid-term conference of the Association of Agricultural Engineering Italian, Belgirate, Italia, 22-24 September |
| 2010 | VII CIGR Congress, Sustainable biosystems through engineering, Quebec City, Canada, 13-17 June |
| | ASABE, Annual International Meeting, Pittsburg, PA, USA, 20-23 June |
| | Eurageng 2010, Clermont Ferrand, France, 6-8 September |
| | Work Safety and Risk Prevention in Agro-food and Forest Systems, Ragusa, Italy, 16-18 September |
| 2009 | 3nd International European Forum on System Dynamics and Innovation in Food Networks, Insbruck-Igls, Austria, 16-20 February |
| | Contribution of logistics and mechanisation for the competitiveness of the agricultural sector Accademia dei Georgofili, sezione Nord-Ovest, Alessandria, Italia, 27 February |
| | XXXIII CIOSTA-CIGR V Technology and management to ensure sustainable agriculture, agro-systems, forestry and safety, Reggio Calabria, Italia, 17-19 June |
| | ASABE/WCCA Annual International Meeting, Reno, NV, USA, 21-24 June |
| | EFITA-Joint international Agricultural Conference, Wageningen, Nederland, 6-9 July |
| | IX Convegno Nazionale dell'Associazione Italiana di Ingegneria Agraria, Ischia Porto, Italia, 12-16 settembre |
| | ASABE, Bioenergy Engineering 2009 conference, Bellevue, WA, USA, 10-16 October. |
| | Land Technik AgEng VDI-MEG, Hannover, Germany, 6-7 November |
| 2008 | 16 th Biomass Conference, Valencia, Spain, 3-7 June |
| | Model-It IV International Symposium on Applications of Modelling as an Innovative Technology in the Agri-Food Chain, Madrid, Spain, 9-11 June |
| | AgEng 2008 Conference, Hersonissos, Crete, 23-25 June |
| | ASABE Annual International Meeting, Rhode Island, MA, USA, 29 June-2 July |
| | CIGR International Conference of Agricultural Engineering, Iguassu Falls City, 31 Aug-4 September |
| | Innovation Technology to Empower Safety, Health and Welfare in Agriculture and Agro-Food Systems, Ragusa, Italy, 15-17 September |
| | 2nd International European Forum on System Dynamics and Innovation in Food Networks, Insbruck-Igls, Austria, 18-22 February |
| 2007 | 15th European Biomass Conference, Berlin, Germany, 7-11 May |
| | 4th Temperate Rice Conference, Novara, Italia, 25-28 June |
| | 5th Efita-WCCA Conference, Glasgow, UK, 2-5 July |
| | Tecnologie innovative nelle filiere: orticola, vitivinicola e olivicolo-olearia-Convegno Nazionale III, V e VI Sezione A.I.I.A., Volterra, Italia, 5-7 Settembre |
| | XXXII CIOSTA CIGR V Labour and Machinery Management for a Profitable Agriculture and Forestry, Nitra, Slovakia, 23-25 September |
| | Greensys 2007, International symposium on high technology for greenhouse system management, 4-6 October |
| 2006 | 4th World Congress on Computers in Agriculture, Lake Buena Vista, Florida, USA, 24-26 July |
| | XVI CIGR-EurAgEng. Agricultural Engineering for a Better World, Bonn, Germany, 3-6 September |

## TEACHING
**Classes, lessons, seminars**

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|---|---|
| Academic year | 2016/2017 |
| • School | University of Florida, Gainesville, FL, USA |
| • Class type | Graduate Online Course |
| • Course | ABE 6933: Logistics of Agricultural Food Chain, syllabus available http://abe.ufl.edu/academics/course-listings/graduate/ABE6933%20Food%20Chains.shtml |
| Hours | 24 |
| | |
| Academic year | 2016/2017 |
| • School | Master in food science and technology |
| • Class type | Flipped Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| | |
| Academic year | 2015/2016 |
| • School | Master in food science and technology |
| • Class type | Flipped Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 80 |
| | |
| • School | Bachelor in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 80 |
| | |
| • Academic year | 2014/2015 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 82 |
| | |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 84 |
| | |
| Academic year | 2013/2014 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 80 |
| | |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 84 |
| | |
| Academic year | 2012/2013 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |

For more info:
http://www.disafa.unito.it/do/docenti.pl/Show?_id=rberruto#profilo

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|---|---|
| Hours | 80 |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 88 |
| Academic year | 2011/2012 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 58 |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 78 |
| Academic year | 2010/2011 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 58 |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 88 |
| • School | Master In Agroecology |
| • Class type | Traditional Classroom |
| • Course | Simulation models for agricultural operations |
| Hours | 30 |
| Academic year | 2009/2010 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 54 |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 88 |
| • School | Master In Agroecology |
| • Class type | Traditional Classroom |
| • Course | Simulation models for agricultural operations |
| Hours | 28 |
| • School | Bachelor in Viticulture and Oenology |
| • Class type | Traditional classroom |
| • Course | Machinery and plant for wine technology |
| Hours | 30 |
| Academic year | 2008/2009 |
| • School | Master in food science and technology |

For more info:
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|---|---|
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 50 |
| | |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 40 |
| | |
| • School | Master In Agroecology |
| • Class type | Traditional Classroom |
| • Course | Simulation models for agricultural operations |
| Hours | 26 |
| | |
| • School | Bachelor in Viticolture and Oenology |
| • Class type | Traditional classoroom |
| • Course | Machinery and plant for wine technology |
| Hours | 33 |
| | |
| *Academic year* | 2007/2008 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 52 |
| | |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| Hours | 36 |
| | |
| • School | Master In Agroecology |
| • Class type | Traditional Classroom |
| • Course | Simulation models for agricultural operations |
| Hours | 34 |
| | |
| • School | Bachelor in Viticulture and Oenology |
| • Class type | Traditional classroom |
| • Course | Machinery and plant for wine technology |
| Hours | 36 |
| | |
| Academic year | 2006/2007 |
| • School | Master in food science and technology |
| • Class type | Traditional Classroom |
| • Course | AGR0289: logistics of agrifood chains |
| Hours | 48 |
| | |
| • School | Bachelor in food science and technology |
| • Class type | Traditional |
| • Course | AGR0237: machines for food industry and catering |
| *Hours* | 32 |
| | |
| • School | Master In Agroecology |
| • Class type | Traditional Classroom |
| • Course | Simulation models for agricultural operations |
| Hours | 32 |
| | |
| • School | Bachelor in Viticulture and Oenology |

For more info:
http://www.disafa.unito.it/do/docenti.pl/Show?_id=rberruto#profilo

| | |
|---|---|
| • Class type | Traditional classroom |
| • Course | Machinery and plant for wine technology |
| Hours | 27 |

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| *Master thesis* | Follow, as a major professors, the following MS thesis: |
| • *Student name* | Fabio Landorno |
| *Thesis title* | "Use of models for optimising the logistics of rice straw for energy recovery" – master in Agroecology |
| • *Student name* | Enrico Cavallero |
| *Thesis title* | "Analysis of logistics of the horticultural district." – Master in food and technology sciences |
| • Student name | Riccardo Pedroni |
| Thesis title | "Development of simulation models for optimising the scheduling of orders. A practical example: Eataly" – Master in food and technology sciences |
| • Student name | Paolo Barchiesi |
| Thesis title | "Logistic optimisation of onion and potato production" – Master in food and technology sciences |
| • Student name | Stefano Palumbo |
| Thesis title | "Lean thinking for agrifood chains" – Master in food and technology sciences |
| • Student name | Lorenzo Venudo |
| Thesis title | "Models to exploit agrifood wastes at agrifood companies" Master in food and technology sciences |

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| **Bachelor level thesis** | Participate as major professor to the following thesis of the Bachelor level |
| • Student name | Guido Santimone |
| Thesis title | "fuel consumption for soil tillage" – Agricultural Sciences and Technologies |
| • Student name | Francesco De Pace |
| Thesis title | "Energy balance of organic agriculture" – Agricultural Sciences and Technologies |
| • Student name | Andrea Carroccio |
| Thesis title | "Energy balance of biomass crops" – Agricultural Sciences and Technologies |

## INTERNATIONAL AWARDS

| | |
|---|---|
| September 2014 | Merit Award -CIGR International Commission of Agricultural and Biosystem Engineering - section VII – Information technology. |
| September 2013 | "INFITA Outstanding Leadership Award" for their efforts in organizing the conference EFITA / CIGR / WCCA 2013 and achievements in promoting the use of information technology in agriculture. |
| July 2017 | Blue Ribbon award for "Innovative Extension Methods of Impact Assessment" from ASABE |

## EDITOR

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|---|---|
| From 2010 to 2014 | Associate editor of section V - Management, System Engineering and ergonomics of Journal of CIGR -International Commission of Agricultural and Biosystem Engineering |
| September 2015 | Guest Editor JSAMI |

## KEYNOTE SPEAKING

| | |
|---|---|
| November 2017 | Workshop on flipped classroom – Albacete (Spain) |
| July 2017 | Workshop on flipped classroom - ASABE Spokane (USA) |
| July 2017 | Workshop on flipped classroom – EFITA Montpellier (France) |
| June 2017 | Workshop on flipped classroom – CIGR V Conference, Palermo (Italy) |
| June 2017 | Keynote speech on flipped classroom – Global Initiative – CIGR V - CIOSTA Conference, Palermo (Italy) |
| November 2016 | Workshop on flipped classroom – Nagoya and Tokio University (Japan) |
| July 2016 | Workshop on flipped classroom - ASABE Orlando (USA) |
| June 2016 | Workshop on flipped classroom – Aarhus Eurageng (Danimarca) |
| June 2016 | Workshop on flipped classroom – Suncheon (Korea) |
| May 2016 | Workshop on flipped classroom – National conference AIIA Alghero (Italia) |
| September 2015 | Keynote speaking at international SHWA – Lodi (Italy) |
| July 2015 | Workshop on flipped classroom - convegno ASABE New Orleans (USA) |
| June 2015 | Workshop on flipped classroom – EFITA Poznam (Poland) |
| May 2015 | Keynote speaking al CIGR V - CIOSTA 2015 – st. Petersburg (Russia) |
| October 2014 | Keynote speaking. 1st international conference of grain storage in Silobags 2014, Mar del Plata, Argentina. |
| July 2014 | Workshop "Logistic modelling and information technology", Conference CIGR VII WCCA 2014, San José, Costa Rica |
| October 2009 | Workshop "Feedstock Supply Logistics", Conference ASABE ", Bioenergy Engineering 2009", Bellevue, WA, USA |

**MEMBERSHIP, CHAIR, OTHER TITLES**

| | |
|---|---|
| June 2015-July 2017 | President EFITA (European Federation of Information Technology for Agriculture) 2015-2017 |
| June 2013 to date | UNITO Representative within the CLAN – National Cluster of Agrifood Industries and research centres |
| July 2012 - current | Founder and Chair Working Group Logistic CIGR - International Commission of Agricultural and Biosystem Engineering, website available http://www.cigr-logistics.org |
| January 2015 to date | Chair of Section V of CIGR |
| January 2010 to date | Vice-Chair of Section V - Italian Association of Agricultural Engineers |
| January 2011 to 2014 | Vice-Chair of Section V - CIGR |
| February 1996 to current | Member of American Society of Agricultural and Biological Engineers – ASABE |
| May 2008 to current | Member of Accademia dei Georgofili, Firenze, Italy |
| June 1995 to current | Member of AIIA, Italian Association of Agricultural Engineers,  Italy |

VISITING PROFESSOR

For more info:
http://www.disafa.unito.it/do/docenti.pl/Show?_id=rberruto#profilo

| July 2016 | Prof. Fedro Zazueta, UFL, FL, USA |
| July 2014 | Prof. Fedro Zazueta, UFL, FL, USA |
| July 2013 | Prof. Dirk Maier, Kansas State University, KS, USA |
| July 2012 | Prof. Fouad Jaber, Texas A&M University, Dallas, TX, USA |
| August 2011 | Prof. Bernard Engel, Purdue University, West Lafayette, IN, USA |
| June 2010 | Prof. Francesco Braga, Dept. of Business, University of Guelph, Canada |
| October 2009 | Prof. Shahab Sokhansanj, University of British Columbia, Vancouver, Canada |
| June 2009 | Prof. Stephen Searcy, Texas A&M University, College Station, TX, USA |
| August 2006 | Prof. Don Jones, Purdue University, West Lafayette Campus, IN, USA |

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