

### PERSONAL INFORMATION

## Dr. Anish Patil anish.patil@techconcepts.eu



WORK EXPERIENCE

Anish Patil is a self-starter with a 'can-do' mentality, team player, verbally strong, fluent in Dutch & English and has good technical writing skills. Core strengths include:

- New business development
- Design thinking for collaborative projects
- Renewables / Circular Economy
- Cross-cultural competence
- Project management in international context
- Proposal/bid development and drafting
- Research / Analysis / Reporting
- Transition management

2021- to date

#### Co-founder and Senior Consultant at TechConcepts BV, The Netherlands

Developing consortia based EU research and innovation projects and implementing dissemination and communication strategies for impact maximization.

- concept and consortia develoment for large Horizon projects in the field of energy and transport
- valorisation of the common elements across the business strategies of the involved partners
- define future EU technological roadmap for EV and (solid-state) battery development
- promote awareness of world-wide IP and expertise in the field of solid-state batteries, to enlarge the

#### 2020- to date TNO Traffic and Transport, Research Group Sustainable Transport and Logistics

#### Senior business development manager

Business developer in the field of sustainable mobility, focusing on real World emission strategy & policy and bringing out the transition towards zero CO2 mobility.

#### Activities:

- Liaise with the Dutch ministry of infrastructure and environment in measurement of real world emissions and support in developing policy strategies.
- Develop new projects in the field of electrification of transport and alternative transport fuels, such as hydrogen.

#### 2016 – 2019 Uniresearch BV, Delft, The Netherlands

#### Senior consultant and project manager

Developing and managing EU H2020 R&D and innovation projects in the field of renewables, biofuels, solid-state batteries, circular economy and electric vehicles.

Activities:

- Develop projects that have a clear scope, work plan and a well-defined business plan
- Develop dissemination and exploitation plans for maximizing impact
- Work as a team player and develop good working relationships with diverse organizations
- Data and knowledge management, and using project management tools for manage resources
- Establish and manage performance, schedule, budget and deliverables
- Manage project scope, identify potential risks and devise mitigation actions
- Knowledge of sustainability standards and regulations
- Train and coach junior consultants and project managers

Highlights:

- Led grant writing and successfully received funding around 50 Meur in the last 3 years.
- Project management for large complex projects including up to 20 organizations and around 10 Meuro.

#### 2011 - 2016 Proton Ventures, Schiedam, The Netherlands



#### **Business Development Manager**

Hands-on experience within a dynamic SME, involving all facets of renewables and decentralized energy systems – from market research to executing contracts.

Activities:

- Establish common understanding between internal & external partners for Power2x & Waste2x projects.
- Develop sales/funding proposals, drew business contracts/agreements and conducted negotiations.
- Develop technology roadmaps performance targets, priorities, demonstration and deployment
- A first point of contact for around 200 potential world-wide clients
- Perform financial analysis set up balance sheets, profit-loss statements and IRR calculations.

Highlights:

- Assisted the engineering team in identifying and bidding for various EPC projects 30 Keuro to 10 Meuro
- Led grant writing and successfully received subsidy funding for various Power2gas and Power2ammonia projects - national (Systeemintegratie and MIT regeling by RVO, in the Netherlands) and EU (Eurostars).

# 2003 - 2014 Delft University of Technology, Delft, Netherlands Researcher

Expertise in energy transitions, renewables, circular economy and socio-technical systems Activities:

- Managed day-to-day the Greening of Gas project (VG2) that studied the technical, institutional and economic feasibility of mixing and transporting hydrogen via the Dutch natural gas network
- Coordinated with a large team (composed of industries, research institutes and universities) to ensure the successful completion of the VG2 project
- Conducted research, analysis and report writing for various sustainable energy projects
- Organized conferences and workshops; applied and received travel and research grants
- Supervised the thesis of 2 MSc students, while one of them graduated cum-laude.

Highlights:

 PhD degree completed, titled: Scripting Transitions - A framework to analyze structural changes in sociotechnical systems.

• 5 peer-reviewed journal and 24 conference publications, while working in cross-disciplinary project teams.

#### Business sector : University

| EDUCATION AND TRAINING |   |
|------------------------|---|
| June 2014              | PhD – Faculty of Technology, Policy and Management<br>Delft University of Technology, The Netherlands |
| May 2003               | Master of Management of Technology<br>Vanderbilt University, Nashville, USA                           |
| August 2000            | Master of Business Administration<br>University of Memphis, Memphis, USA                              |
| June 1998              | Bachelor of Engineering in Mechanical Engineering<br>University of Pune, Pune, India                  |
| PERSONAL SKILLS        |   |
| Mother tongue(s)       | Hindi/English   |



| on European Framewo<br>communication sl<br>ect manager and l   |   | guages   | Spoken production   | C1  |  |  |
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| A1/2: Basic user - B1/<br>on European Framewo<br>communication sl<br>ject manager and f  | 2: Independent user - C1<br>ork of Reference for Lan<br>kills gained through  | L/2 Proficient user<br>guages  | C1  | C1  |  |  |
| on European Framewo<br>communication sl<br>ect manager and l   | ork of Reference for Lang<br>kills gained through   | guages   |   |   |  |  |
| ect manager and I  |   | my experience as:  |   |   |  |  |
| dership, accountin   |   | Good communication skills gained through my experience as: <ul> <li>Project manager and Business Development manager.</li> </ul>   |   |   |  |  |
| <ul> <li>Leadership, accounting, management of people, project management,</li> </ul>  |   |  |   |   |  |  |
| <ul> <li>New business development</li> <li>Project management in international context</li> <li>Design thinking for collaborative projects</li> <li>Renewables / Circular Economy</li> <li>Proposal/bid development and drafting</li> <li>Research / Analysis / Reporting</li> <li>Cross-cultural competence</li> <li>Transition management</li> </ul>   |   |  |   |   |  |  |
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| c transport buses -  | - Case of Brisbane Tr   | ransport. In: Journal of P   | ublic Transportation. Vo  | 13, No. 2. 2010   |  |  |
| <ul> <li>Anish Patil, Austine Ajan, Patilen Herder (2009). Recycling industrial waste near for sustainable district heating: a multi-actor perspective. International Journal of Environmental Technology and Management (IJETM) Volume 10 - Issue 3/4 - 2009</li> <li>Kas Hemmes, Anish Patil and Nico Woudstra, Flexible Co-Production of Hydrogen and Power using Internal Reforming SOFC System. ASME Fuel Science and Technology Journal. Vol 5, No. 4, 2008</li> </ul> |   |  |   |   |  |  |
| A. N Ajah, A. C. Patil, P. M. Herder and J. Grievink, Integrated Conceptual Design of a Robust and<br>Reliable Waste-Heat District Heating System. Applied Thermal Engineering. Vol 27, No 7, pp 1158-1164, 2007   |   |  |   |   |  |  |
| Ajah A.N.; A.C. Patil and P.M. Herder: Robust Conceptual Design of a Residual Industrial Waste-<br>Heat District Heating System, Chemical Engineering Transactions, Vol 7, pp 85-90, 2005.   |   |  |   |   |  |  |
|  |   |  | as a battery for strande  | d and excess energy   |  |  |
| Patil, A., Lucas Laumans and Hans Vrijenhoef (2013). Solar to Ammonia – via Proton's NFuel units. 2nd International Symposium on Innovation and Technology in the Phosphate Industry [SYMPHOS 2013], Agadir, Morocco.  |   |  |   |   |  |  |
| Anish Patil, Hans Vrijenhoef and Ioanna Aslani (2011) Ammonia – Fuel for the Future. Low<br>Carbon Energy Summit, Dalian, China. 19-26 October.  |   |  |   |   |  |  |
| Patil, A.C.: Transition towards a Greener Energy System: Hydrogen based fuel for Transport, pp.<br>111-121. In: Proceedings of the Oikos Ph.D. summer Academy 2007: Sustainability, Innovation and<br>Entrepreneurship Aug. 20-24 (2007). At: Urnasch, Switzerland. [s.l.]: Oikos International, 2007. Eds.:<br>Hamschmidt, Jost.  |   |  |   |   |  |  |
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|  | ject management i<br>ign thinking for col-<br>newables / Circular<br>posal/bid developre<br>earch / Analysis / F<br>ss-cultural compet-<br>nsition manageme<br>a Patil, Paulien Hero<br>c transport buses –<br>a Patil, Austine Ajah-<br>ct heating: a multi-<br>vl) Volume 10 - Issu<br>lemmes, Anish Pat<br>c Internal Reforming<br>Ajah, A. C. Patil, P. N<br>ble Waste-Heat Diss<br>A.N.; A.C. Patil and<br>District Heating Sy<br>a Patil and Bob Wee<br>ces. Dag van de Inn<br>A., Lucas Laumans<br>. 2nd International<br>PHOS 2013], Agad<br>a Patil, Hans Vrijenh-<br>on Energy Summit,<br>A.C.: Transition tov<br>121. In: Proceeding<br>preneurship Aug. 2<br>schmidt, Jost.<br>A.C.: Transition tov | ject management in international cont<br>sign thinking for collaborative projects<br>newables / Circular Economy<br>posal/bid development and drafting<br>earch / Analysis / Reporting<br>ss-cultural competence<br>nsition management<br>a Patil, Paulien Herder and Kerry Brown<br>c transport buses – Case of Brisbane The<br>Patil, Austine Ajah, Paulien Herder (20<br>ct heating: a multi-actor perspective. In<br>VI) Volume 10 - Issue 3/4 - 2009<br>lemmes, Anish Patil and Nico Woudstr<br>(Internal Reforming SOFC System. ASN<br>Ajah, A. C. Patil, P. M. Herder and J. Gri-<br>ble Waste-Heat District Heating System<br>A.N.; A.C. Patil and P.M. Herder: Robus<br>District Heating System, Chemical Eng<br>A Patil and Bob Weehuizen (2015) Wind<br>tes. Dag van de Innovatie, Rotterdam. I<br>A., Lucas Laumans and Hans Vrijenhoo<br>. 2nd International Symposium on Inno<br>PHOS 2013], Agadir, Morocco.<br>a Patil, Hans Vrijenhoef and Ioanna Asla<br>on Energy Summit, Dalian, China. 19-2<br>A.C.: Transition towards a Greener Ene<br>L21. In: Proceedings of the Oikos Ph.D.<br>preneurship Aug. 20-24 (2007). At: Ur<br>schmidt, Jost. | ject management in international context<br>sign thinking for collaborative projects<br>sewables / Circular Economy<br>posal/bid development and drafting<br>earch / Analysis / Reporting<br>ss-cultural competence<br>nsition management<br>Patil, Paulien Herder and Kerry Brown. Investment decision m<br>c transport buses – Case of Brisbane Transport. In: Journal of P<br>Patil, Austine Ajah, Paulien Herder (2009). Recycling industrial<br>ct heating: a multi-actor perspective. International Journal of E<br>V) Volume 10 - Issue 3/4 - 2009<br>Remmes, Anish Patil and Nico Woudstra, Flexible Co-Productior<br>Internal Reforming SOFC System. ASME Fuel Science and Tech<br>Ajah, A. C. Patil, P. M. Herder and J. Grievink, Integrated Concept<br>ble Waste-Heat District Heating System. Applied Thermal Engir<br>A.N.; A.C. Patil and P.M. Herder: Robust Conceptual Design of a<br>District Heating System, Chemical Engineering Transactions, Vo<br>Patil and Bob Weehuizen (2015) Wind 2 Ammonia: Ammonia<br>ses. Dag van de Innovatie, Rotterdam. Poster Presentation.<br>A., Lucas Laumans and Hans Vrijenhoef (2013). Solar to Ammonia<br>2 and International Symposium on Innovation and Technology i<br>PHOS 2013], Agadir, Morocco.<br>A Patil, Hans Vrijenhoef and Ioanna Aslani (2011) Ammonia – Fu<br>on Energy Summit, Dalian, China. 19-26 October.<br>A.C.: Transition towards a Greener Energy System: Hydrogen b<br>L21. In: Proceedings of the Oikos Ph.D. summer Academy 2007<br>preneurship Aug. 20-24 (2007). At: Urnasch, Switzerland. [s.I.]:<br>schmidt, Jost.<br>A.C.: Transition towards a sustainable energy system, 11 sheet | ject management in international context<br>sign thinking for collaborative projects<br>sewables / Circular Economy<br>posal/bid development and drafting<br>earch / Analysis / Reporting<br>ss-cultural competence<br>nsition management<br>Patil, Paulien Herder and Kerry Brown. Investment decision making for alternative fue<br>c transport buses – Case of Brisbane Transport. In: Journal of Public Transportation. Vol<br>Patil, Austine Ajah, Paulien Herder (2009). Recycling industrial waste heat for sustaina<br>ct heating: a multi-actor perspective. International Journal of Environmental Technolog<br>V) Volume 10 - Issue 3/4 - 2009<br>Temmes, Anish Patil and Nico Woudstra, Flexible Co-Production of Hydrogen and Powe<br>Internal Reforming SOFC System. ASME Fuel Science and Technology Journal. Vol 5, Ni<br>Ajah, A. C. Patil, P. M. Herder and J. Grievink, Integrated Conceptual Design of a Robust<br>ble Waste-Heat District Heating System. Applied Thermal Engineering. Vol 27, No 7, pp<br>A.N.; A.C. Patil and P.M. Herder: Robust Conceptual Design of a Residual Industrial Wass<br>District Heating System, Chemical Engineering Transactions, Vol 7, pp 85-90, 2005.<br>Patil and Bob Weehuizen (2015) Wind 2 Ammonia: Ammonia as a battery for strande<br>ses. Dag van de Innovatie, Rotterdam. Poster Presentation.<br>A., Lucas Laumans and Hans Vrijenhoef (2013). Solar to Ammonia – via Proton's NFuel<br>. 2nd International Symposium on Innovation and Technology in the Phosphate Industri<br>PHOS 2013], Agadir, Morocco.<br>Patil, Hans Vrijenhoef and Ioanna Aslani (2011) Ammonia – Fuel for the Future. Low<br>on Energy Summit, Dalian, China. 19-26 October.<br>A.C.: Transition towards a Greener Energy System: Hydrogen based fuel for Transport,<br>L21. In: Proceedings of the Oikos Ph.D. summer Academy 2007: Sustainability, Innovati<br>preneurship Aug. 20-24 (2007). At: Urnasch, Switzerland. [s.l.]: Oikos International, 200 |  |  |



#### Portugal.

Projects OBELICS (<u>www.obelics.eu</u>) develops new tools to enable multi-level modelling and testing of EV and their components in order to deliver more efficient vehicle designs faster while supporting modularity to enable mass production and hence improved affordability. EU H2020 project 2017-2020

Fit-4-AMandA (<u>www.fit-4-amanda.eu</u>) focusses on the industrialization of Fuel cell stack production and delivering affordable fuel cell systems. FCH JU project 2017-2020

SELFIE (www.eu-project-selfie.eu) Smart Battery Thermal Management Solution for Battery Electric Vehicles. EU H2020 project from 2019-2022

Green NCAP (<u>www.greenncap.com</u>) is an independent initiative which promotes the development of cars which are clean, energy efficient and not harmful to the environment. It aims to improve the quality of the air that we breathe, to maximise the use of resources used for passenger transportation and to reduce global warming. EU H2020 project from 2019-2021

REDIFUEL (<u>www.redifuel.eu</u>) focuses on utilization of various biomass feedstock for an ultimate renewable EN590 diesel biofuel (drop-in capable at any ratio) in a sustainable manner. EU H2020 project from 2019-2021

SAFELIMOVE – High density solid-state batteries, based on ceramic-polymer electrolyte, for next generation of electric vehicles. EU H2020 project from 2019-2022

SUBLIME - High density solid-state batteries, based on sulfide electrolyte, for next generation of electric vehicles. EU H2020 project from 2020-2023

Conferences Patil, A. (2015). Ammonia as an energy carrier – update from the Netherlands. 12th Annual NH3 Fuel Association Conference, Chicago.

Patil, A. (2012). Ammonia: an Energy Buffering Solution for the Future. 9th Annual NH3 Fuel Association Conference San Antonio.

Anish Patil and Paulien Herder (2010) Changing the Rules of the Game to Influence the Diffusion of Alternative Fuels. 33rd IAEE conference, Rio de Janeiro, Brazil. 6-9 June

Anish Patil (2009) Mixing and Transportation of Hydrogen via the Natural Gas Network in Rozenburg. 32nd IAEE Conference - Energy, Economy, Environment: The Global View, San Francisco. 21-24 June.

Anish C. Patil and Kerry Brown (2008) Trends in Emission Standards and the Implications for Bus Fleet Management: Technology Assessment for Brisbane Transport. Next Generations Infrastructure conference - Building Networks for a Brighter Future, Rotterdam. 10-12 November

Anish Patil and Wouter Meijers (2008) Investing in new public transport buses – decision making in the face of uncertainties. WCEAM Beijing. 28-30 October.

Anish Patil and Kerry Brown (2008). Scenario Analysis to Assist Brisbane Transport in Achieving 2026 Patronage and Clean-Air Targets. In the proceedings of the The Twelfth Annual Conference of the International Research Society for Public Management, held at Brisbane, Australia. March 26-28

Patil, A.C.; A.N. Ajah and P.M. Herder: Trends in Emission Standards for Public Transport Buses: How Low should they go, pp. 1-12. In: Proceedings of the 2007 IAEE Asian Conference: Asian Energy Security and Economic Development in an Era of High Oil Prices 5-6 November 2007. At: Taipei, Taiwan, ROC. [s.l.]: IAEE, 2007. Eds.: Yunchang Jeffrey Bor.

Patil, A.C. and P.M. Herder: Efficient Energy System: a Multi-Actor Analysis and Modelling Approach, pp. 1-5. In: Proceedings of the International Conference and Exhibition Joint Conference with The International Solar Energy Society ISES, Renewable Energy 2006: Advanced Technology Paths to Global Sustainability, 9-13 October (2006). At: Chiba, Japan. Eds.: Yoshihiro Hamakawa, Kosuke Kurokawa and Yogi Goswami. International Conference (refereed).



Patil, A.C.; A. Ajah and P.M. Herder: Sustainable District Heating System: A Multi-Actor Perspective, pp. 1-8. In: Proceedings of the EIC Climate Change Technology Conference 2006, May 10. At: Ottawa, Canada. [s.l.]: IEEE. Eds.: John Grefford, P.Eng. ISBN: 1-4244-0218-2. International Proceeding (refereed)

Patil, A.C.; Garbacki, PJ and P.M. Herder: An Analytical Approach to Correlating World Development Indicators, pp. 1-15. In: Proceedings of the III Scientific Conference on Economic Globalization and Environmental Policy 25/26 May (2006). At: Warsaw, Poland. Eds. International Proceedings (refereed)

Patil, A.C.; P. Garbacki and P.M. Herder: The Hydrogen Economy – Potential & Reality. In: Posters of the International Conference and Exhibition Joint Conference with The International Solar Energy Society ISES, Renewable Energy 2006: Advanced Technology Paths to Global Sustainability, 9-13 October (2006). At: Chiba, Japan. Eds.: Yoshihiro Hamakawa, Kosuke Kurokawa and Yogi Goswami. International poster

Anish C. Patil, Paulien M. Herder & Margot Weijnen: Actionable Solutions to Tackle Future Energy Uncertainties, In: Proceedings of the IEEE Conference on Systems, Man, and Cybernetics, Oct. 10th-12th 2005. At: Hawaii, USA.

Patil, A.: Dutch Energy System in Transition, pp. 1-10. In: Proceedings of the 5th BIEE Academic Conference, Sept. 22nd-23rd 2005. At: Oxford, UK.

Zachariah, J.L; K. Hemmes and A. Patil: The Effect of Knowledge on the Public Acceptance of Hydrogen and Its Potential Applications in the Netherlands Results of a Survey, pp. 1-9. In: Proceedings of the International Hydrogen Energy Congress and Exhibition (IHEC 2005). At: Istanbul, Turkey, July 13th -15th, 2005. Istanbul: IHEC, 2005.

Patil, A.C. and P.M. Herder: Dutch Natural Gas Market: Past, Present and Future, pp. 1-12. In: Proceedings of the 28th Annual IAEE International Conference, June 3rd-June 6th, 2005. At: Taipei, Taiwan.

Hemmes, K.; A. Patil and N. Woudstra: Internal Reforming SOFC System for Flexible Co production of Hydrogen and Power, pp. 1-6. In: Proceedings of the 3rd International Conference on Fuel Cell Science, Engineering and Technology, May 23-25, 2005. At: Ypsilanti, Michigan, USA.

Patil. A.C. and P.M. Herder: Energizing the future - Case of Dutch energy system, pp. 208-213. In: Proceedings of the IASTED International Conference on Energy and Power Systems - EPS2005, April 18th - 20th, 2005. At: Krabi, Thailand.

Hemmes, K; Patil, A & Zachariah, JL: Flexible Co-Production of Hydrogen and Power using Fuel cells. International Gas Research Conference, 1-4 November 2004. Vancouver, Canada.

Van den Bosch, S; Molin, E; Hemmes, K; Zachariah, JL; Patil, A; Caspar C; Wouter, B and Dragutiovic, N: Public Acceptance of Hydrogen in the Netherlands: Results of a Survey. In: Proceedings of the World Hydrogen Energy Conference, 27 June - 2 July 2004. Yokohama, Japan.

Correlje, A.; Hemmes, K; Patil, A and Zachariah, JL: The Transition to Hydrogen in Europe, Framing the Complexity in Markets, Institutions and Technology. In: Proceedings of the International Conference on Hydrogen in Europe, 23-24 June 2004. Bruges, Belgium.

#### Honours and awards

 Infraspark award, NG Infra and Delft University of Technology – May 2014. Infraspark is an award for PhD research that has had the most impact in practice. First out of 80 PhD's

 1st prize in the Smart Port Poster Session, Port of Rotterdam – June 2013. Converting excess wind power into valuable products by "transhipment" of wind".

#### Memberships • MENSA

Kiva, creating funding opportunities for businesses in developing countries

Volunteering experience

- Travel and cross-cultural expert: analyzed business, organizational and social processes (write and maintain a blog www.cultureguru.nl). Traveled to 50+ countries and open to new cultures.
- Volunteering experience for youth education (Junior Achievements of Tennessee), promoting cross-cultural awareness (International Students in Services at Vanderbilt, and International Neighborhood group at Delft) and fundraising for social causes.